

# AMERICAN AGRICULTURIST,

ADAPTED TO THE  
Farm, Garden, and Household.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN—WASHINGTON.

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## September.

"Autumn paints  
Ansonian hills with grapes, whilst English plains  
Blush with pomaceous harvests, breathing sweets.  
O let me now when the kind early dew  
Unlocks the embosomed odors, walk among  
The well ranged files of trees, whose full-aged stores  
Diffuse ambrosial steams, than myrrh or nard  
More grateful, or perfuming flowery bean!  
Soft whispering airs, and the lark's matin song  
Then woo to musing, and becalm the mind  
Perplexed with irksome thoughts. Thrice happy time,  
Best portion of the various year, in which  
Nature rejoiceth, smiling on her works,  
Lovely to full perfection wrought!"—PHILIPS.

The capacities of our soil and climate for fruit  
growing have been greatly under-estimated. They  
are by no means now fully tested, and our best  
pomologists hardly comprehend the whole truth  
in this regard. It is not until within the last  
twenty years that horticulture has received any  
scientific and systematic attention in this country.  
There were individual fruit growers, gentlemen  
of intelligence and wealth in our cities or their  
suburbs, who had the leisure to plant gardens  
and orchards, and to study the wants of trees and  
shrubs bearing fruit. But these pioneers labored

under very great disadvantages from the fact  
that there were no horticultural publications and  
no associated effort to promote the science and  
practice of horticulture. The extent to which  
new fruits may be originated by hybridizing and  
by planting seeds, was not well understood. Only  
a very few were enabled to avail themselves of  
the labors of European pomologists, and the in-  
troduction of a new ornamental tree or shrub, or  
a new fruit, was of rare occurrence. There were  
very few intelligent nurserymen, and if a new  
fruit was procured from abroad, or originated at  
home, it was a very long while before it became  
generally known. Every one pursued his inves-  
tigations almost wholly alone, and the knowledge  
he attained, often perished with him, or was con-  
fined to his immediate neighborhood.

The disabilities under which fruit growers la-  
bored, are sufficiently shown by the fact, that  
the Pinneo pear, one of the finest fruits of its sea-  
son, was grown in eastern Connecticut for a cen-  
tury before it was brought out by an Eastern nur-  
seryman, and baptized with a new name, when it  
received a premium from the Mass. Horticul-  
tural Society as a *new seedling*! Even now, with  
all the researches of Pomologists and the multipli-  
cation of societies extending over twenty years,  
we are continually finding fruits of great merit,  
little known except in the limited districts where  
they originated. Go into almost any of the towns  
in New-England, and you shall find good seedling  
apples that have been known in the vicinity for  
several generations, and yet are not found in the  
books. If an apple like the Baldwin, the Roxbury  
Russet, or the Rhode Island Greening happened  
to spring up on the farm of a gentleman inter-  
ested in fruit growing, it was disseminated. If it  
originated upon the farm of a man whose ambi-  
tion ran solely to corn, oats, potatoes, and grass,  
it would never be multiplied, even upon his own  
farm. We find farmers by the hundred, even in  
New England, who never attempted to graft or  
bud any kind of fruit. If they have any fruit upon  
their farms, it is on chance trees that have sprung  
up by the walls or in the edges of woods and  
bush pastures, and have escaped the innumerable  
croppings of animals. There are many more  
whose only fruit trees are the recently planted  
products of the nursery.

It is even more recently that the vine has re-  
ceived any attention. People are still found by  
the thousand who have never tasted any thing  
better than a wild grape, and whose ideal of a  
good grape is an article of strong foxy odor, of  
the size of bullets, pulp tough as rubber and half  
seeds at that, with six berries to the bunch.  
They honestly believe that these are better than  
the cultivated varieties, and adorn their walls  
with wild seedlings from the swamp. In no de-  
partment of pomology have we made more satis-  
factory progress than in grape growing during the  
last ten years. A dozen or more new varieties  
of great promise have been introduced, and some

of them quite generally distributed. Where the  
ideal of high culture has been to plant a vine in  
common garden soil and let it take care of itself,  
there have of course been failures, and a very  
poor opinion formed of the capacities of our soil  
and climate for vineyards. But where a suitable  
border has been prepared, well drained, and made  
rich in bones and compost, and the vines laid  
down in Winter and well trained in Summer, the  
most satisfactory results have been obtained. In  
the back yards of city and village dwellings, where  
the vine has the advantage of protection from  
winds and frost and an abundant supply of soap  
suds, the Isabella and Catawba, though later  
than the newer varieties, have generally done  
well.

The proper training of the vine and the making  
and treatment of the border, are not yet perfectly  
understood. The methods of our most success-  
ful amateurs, if published, are not distributed very  
widely among the people, and are probably thought  
to be too laborious and expensive to be generally  
adopted. But the results reached at Croton  
Point, at Iona Island, and other places where the  
trial has been thorough, fully justify the opinion  
that good table and wine grapes may be grown  
economically in all parts of the country south of  
Albany, and perhaps still further north, in favored  
localities.

Every Autumn, with its multitude of fairs in al-  
most every county and city, brings very satisfac-  
tory evidence of the healthful progress of horti-  
culture. Fruits rare ten years ago are now wide-  
ly distributed, and make their appearance upon  
the Fair tables from Maine to Georgia. While  
the varieties that flourish equally well in all parts  
of the country are exceedingly limited, every  
section has its native fruits that leave little to be  
desired. Even the South, which entered later  
than the North upon horticultural improvement,  
has a large list of native apples of surpassing ex-  
cellence. The display of fruits from North Car-  
olina at the meeting of the American Pomologi-  
cal Society in this city two years since, was a  
marked feature in the exhibition. The great West  
teems with its new apples, pears, grapes, plums,  
and cherries, and the vineyards along the Ohio  
are every year spreading over a larger territory.

On the whole, as we look forward to the bi-  
ennial session of our National Pomological Society  
the present month, we improve the occasion to  
congratulate our readers upon the healthful pro-  
gress of fruit culture in all parts of the land.  
Good fruit adapted to his soil and climate, is now  
within reach of every intelligent land holder in  
the country. At a trifling expense he can learn  
the best varieties for his location, and how to  
plant and tend them so as to make success cer-  
tain. Almost a complete treatise upon fruit  
culture could be made from any one of our own  
annual volumes. They gather up the ripe expe-  
rience of amateurs, and convey information only  
learned by years of trial and multiplied losses.

## Calendar of Operations for Sept., 1860.

[We note down sundry kinds of work to be done during the month, to call to mind the various operations to be attended to. A glance over a table like this will often suggest some piece of work that might otherwise be forgotten or neglected. Our remarks are more especially adapted to the latitudes of 38° to 45°; but will be equally applicable to points further North and South, by making due allowance for each degree of latitude, that is, earlier for the North, and later for the South.]

**EXPLANATIONS.**—*f* indicates the first; *m* the middle; and *l* the last of the month.—Doubling the letters thus: *ff*, or *mm*, or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, signify that the work may be done in either or in both periods indicated; thus, work marked *fm*, indicates that it is to be attended to from the first to the middle of the month.]

## Farm.

September is, in many respects, one of the most important months in the farming year. The great staples, wheat, rye, oats and grass are secured, and corn is often sufficiently advanced to enable us to fairly estimate the yield. It can, in most instances, be pretty accurately decided whether the year has been a profitable one for the community and for individuals. Taking the country together, we hear but one opinion expressed—it is a year of plenty. But all have not shared the full measure of the bountiful yield. No favoring sunshine nor timely showers can atone for neglect or mismanagement. They have profited who have planned judiciously and followed up their plans with energy—loss by drouth and tornado excepted.

A farmer to succeed must fix his eye upon results years ahead. Every crop should be put in with reference to improving the soil as well as with a view to present profit. Now is the time for laying plans for the succeeding year. If there has been failure because too much space was given to some one crop, arrange the plan with a view to a variety; some one of the staples almost invariably succeeds—it is unwise to venture the whole year's labor upon a single crop. Thorough preparation of the soil will go far toward securing the winter grain to be sown this month, against the contingencies of the season. A wet basement is as unwholesome for crops as for men. Let draining and subsoiling occupy a prominent place in the programme of work for the month.

Agricultural exhibitions are very generally held at the North during this month; every cultivator has an interest in them. A day spent in carefully examining improved implements, and superior samples of grain, vegetables, etc., will often be worth many dollars in suggestions of practical value. Each should also be willing to contribute whatever would add to the interest of the exhibition.

Buildings of all kinds should be put in thorough repair before the driving storms of Autumn find an entrance. Provide sufficient shelter for all stock. Erect sheds for sheep, and for storing manure.

Beans—Pull and dry, *m, l*. The haulm (straw) properly cured, and also the beans themselves are much relished by sheep, for which they are excellent food.

Buckwheat—Cut, *m*, and put up in small bundles to cure. Cart to the barn and thresh out before it shells badly in the field. The straw is of some value for feeding with hay, but alone is a poor dependence.

Butter—Commence laying down for Winter use. If properly worked, it will keep without the use of salt enough to destroy the flavor—if worked too little, salt will not save it. One cent per pound added in extra care in putting up, will make from three to six cents per pound difference in the price obtained.

Cabbages—Market early varieties now matured, and continue to hoe later plantings.

Cattle—Commence feeding grain to those intended for fattening, giving a small allowance daily, and increasing it gradually. Its effect will be felt more than in cold weather. Keep up the flow of milk by giving cuttings from the softening patch night and morning. Refuse from the garden, beet tops, trimmings of cabbages, etc., will be eaten greedily.

Cellars—Thoroughly cleanse and put in order for the reception of Fall crops of roots, apples, etc. Arrange for ventilation; destroy rats and mice.

Corn—Examine for the earliest and best ears for seed, and mark each hill to be gathered, traced together, and hung up for future use. Cut the crop up by the ground before injured by frosts, set in stocks firmly bound, to be drawn and husked at leisure. See article "Cutting Corn Stalks," in this number.

Cisterns—Construct if needed, for supplies of water for the house or out-buildings, and also for liquid manures.

Draining—Surface drain furrows should be run through fields sowed with Winter grain, to carry off the surplus water, but this is only the beginning of a good work. Subsoiling and draining with tiles are needed on more than half the farms in the country. Make a commencement upon a small scale, say an acre or so by way of experiment

—the results will speedily lead to further operations.

Eggs—Pack in salt a sufficient supply for Winter use.

Fences—Examine and keep in repair, particularly about the corn fields. Build new lines when wanted, but have as few as may be—they are necessary evils at best.

Forests—Continue to cut away, *ff*, those intended for cultivation.

Grain—Early threshing, especially of that stacked in the field, will save much from the depredations of vermin. Have grain bins secured against rats and mice. Market as soon as prices are fair.

Hedge Rows and Bushes scattered through the grain fields, meadows, etc., or by the roadside, are always out of order. Take them out by the roots.

Hemp and Flax—Pull, *m, l*, and spread for rotting.

Hogs—Confine to the pens those intended for fattening. They thrive best in separate apartments. Commence feeding grain early. Cooked food will pay best. Read article on a subsequent page of this number.

Manure—Put all the manufactories in order for the coming season. Secure abundant supplies of muck to absorb liquids from the stables and the barn yard. Construct drains and cisterns to save urine. Cart to the barn yard weeds and waste coarse grasses cut from the roadsides and swales. Turn the wash of the roads upon the fields.

Plow, *ff*, for Winter grain if not already finished. Deepen the soil an inch at each successive plowing. Try subsoiling part of a field, and note the results.

Potatoes—Leave them in the ground until next month unless wanted for marketing. When dug, gather the tops, weeds, etc., to add to the compost heap.

Poultry—Give them free range, and feed regularly, if they have not access to grain stubbles. Collect eggs for Winter supply.

Rowen—A good clip may be cut from many meadows, *ff*. It will afford excellent food for lambs and young stock.

Root Crops—Keep the ground well stirred and free from weeds. The horse hoe greatly reduces the cost of growing these crops.

Rye—Sow, *ff, m*, if not done last month. Thoroughly cleanse the seed from cockle, chess, and other foul stuff. Oats and the seeds of many weeds will float upon strong brine, leaving the rye at the bottom. See that proper surface drain furrows are cut throughout the field.

Sheep—Read articles on "Sheep Husbandry" now in course of publication in this paper.

Soiling Crops—Cut and feed as wanted, *ff, m*. Any remaining should be harvested and cured before frosts have injured it.

Sorghum—Commence grinding, *ll*. It will yield a better quality of syrup if manufactured before frost injures the plant. Sugar is successfully manufactured by the improved evaporators now in use, made after Cook's patent. Timber may be still cut to good advantage, as noted last month.

Timothy—Sow with wheat or rye, or alone, for future grass crops. If put in by itself, the latter part of August is preferable.

Turnips—Thin late sowings, feed early ones, and keep all well hoed. Sow more of the quick growing varieties on vacant ground, *ff*.

Weeds—All left to scatter seed will multiply many fold another season. All that have been left to mature should be cut and burned.

Wheat should now be put in as early as may be, on deeply plowed and finely pulverized soil that has received a good coating of manure. Many complaints of winter-killing are owing to late sowing. The growth is not sufficient to protect the roots before Winter sets in. Where it can be done, use the drill in sowing.

## Orchard and Nursery.

The principal work of the month in the orchard will be securing and marketing or otherwise disposing of the fruits as they ripen. Most tree fruits are of better flavor if gathered while yet firm, and allowed to mellow in a cool dry room. They also bear transportation much better than when fully ripened. Care and judgment must be exercised to take them from the tree at just the right period—picking a few days too early or too late will make considerable difference in the value. Perfectly sound fruit, not over ripe, will preserve its freshness a long time if kept at a low temperature as in an ice house. Advantage may be taken of this in abundant seasons, to keep part of the crop until prices are improved by scarcity in the market.

The nurseryman is still engaged in budding the peach and other late growing trees, and in renewing the buds on those stocks where former insertions have failed.

Every thing about the grounds should be put in readiness for the commencement of the Fall business next month.

Drying Apples—Common sorts which are of little worth in market, will meet a ready sale next Winter if properly dried. Remove all the skin and core, slice them thin, dry quickly but not at too high a temperature, and keep from being wet. A screen of netting over them to keep out flies and other insects, will add much to the appearance. Scatter a few bits of sassafras bark among the fruit when putting it away, to keep out worms.

Evergreens succeed best, transplanted in Spring. If moved now, extra pains will be needed to preserve the roots unbroken. Keep as large a ball of earth as possible about them. Prune such as need it to bring to good form.

Hoeing occasionally will still benefit the nursery row, by destroying weeds, and also by exposing chrysalids of insects. In most cases the use of the horse hoe or cultivator will suffice.

Insects—Allow none to take up their Winter quarters on the trees. Clean the trunks and limbs from scale by washing with strong soap suds, or lye of moderate strength. Read "Follow up the Apple Borer," on page 274, this No.

Labels—Prepare a sufficient supply for use during the coming busy season.

Layering may still be done, *ff, m*, on new wood.

Manure—Provide an abundant supply, which will be needed for grounds to be occupied by trees set this Fall. Muck and vegetable mold from the woods are of high value for the tree grower.

Pits of peaches, plums and other stone fruits, also seeds of apples, pears, etc., should be placed in earth, or planted where wanted as soon as cleaned. They often fail to germinate when allowed to become dry.

Preserve a full supply of pears, peaches, plums, etc., in bottles or cans for Winter use. Full directions have been given in previous numbers. We are using glass bottles only this year, and with good success.

Pruning is better done earlier in the season, but the present is preferable to Spring.

Plans of the nursery and orchard, with a record of the names and times of planting all trees will be found very useful. Labels are often destroyed, and much confusion results where they are the only dependence.

Seed Beds—Keep free from weeds, and water as may be needed.

Seeds—Gather as they ripen on the trees or shrubs, label distinctly and put in earth, or store for future use.

Weeds and Grass—Continue to hoe out and remove to the compost heap until the close of the season.

## Kitchen and Fruit Garden.

This is the season of gathering rather than cultivation, although a few sorts are to be sown to be protected in Winter for earliest crops next year. As fast as plots are cleared of produce, the refuse, tops, sortings, weeds, etc., should be cleared away to feed out in the pig-pen or cattle yard. It adds greatly to the appearance of the garden to fork over and level the ground even if it be not wanted for immediate use. Now is also a favorable time for improving the soil by trenching and draining. These operations are indispensable to successful gardening upon a very large part of the soils under cultivation. If there be not time to go over the whole area, a small plot may be treated annually. The improved yield will soon lead to a like thorough preparation of the whole grounds.

Beans—Gather and shell as they ripen. Limas picked while the pods are still green, and dried in the pod, will afford an excellent dish next Winter. These and other vegetables may also be thoroughly cooked and then preserved in sealed bottles or cans.

Blackberries—Remove the old canes that have finished bearing. Cut out weaker shoots, leaving one or two of the strongest for next season's fruiting.

Cabbage and Cauliflower—Sow, *ff, m*, to be pricked out in cold frames during October and November. Market early plantings as they mature, and keep later sorts well hoed.

Celery—Earth up once a fortnight, in clear dry weather—never when wet with dew or rain, which will cause rust and decay of the stalks. Be careful that no dirt is thrown upon the crown or between the stalks, and that the stalks are not bruised.

Corn—Select the earliest and finest ears for seed. Choose those from stalks bearing two or more ears. Cut up the stalks as fast as the corn is gathered, and feed out, or cure for Winter use.

Corn Salad and Kale—Sow, *ff, m*, to be protected through Winter.

Cucumbers—Give plenty of water during the bearing season. Destroy insects by hand picking. Save the ear



best and best specimens for seed. Gather daily while young, for pickles.

**Grapes**—Pick for market or for wine making, as they ripen. Those intended to be packed for Winter use, may be left upon the vines until the time of frosts.

**Hoe** growing crops, as turnips, cabbages, etc., to destroy all weeds, and keep the soil light.

**Hops**—Gather and dry, fl, m, and house the poles.

**Lettuce** sown, fl, will yield late growth for the table. Sow, mm, l, to be removed to cold frames next month.

**Manures**—Turn every source of home manufacture to account, rather than depend on buying. By commencing thus early, a good quantity may be stored for use next season.

**Melons**—Place pieces of board under those ripening—they lose flavor on the side in contact with the ground. Pick as fast as they ripen, otherwise the best aroma will be lost. Save seeds of the earliest and best.

**Mushrooms**—Make beds or prepare barrels, m, l.

**Onions**—Pull and dry as they ripen. Sow seed, f, m, for plants to be protected during Winter to come on early in Spring.

**Parsley**—Sow, fl, m, for use in Spring.

**Pickles**—Collect for pickling, cucumbers, tomatoes both ripe and green, Winter Cherries, peppers, nasturtiums, etc., etc.

**Radishes**—Sow, fl, m, for Fall, and, ll, for Winter use.

**Raspberries**—Follow directions of last month. Collect and house stakes for use next year.

**Rhubarb**—A few stalks may still be pulled from the Linnaeus variety for present use, or for preserving in bottles.

**Seeds**—Gather, clean, put up in papers and label distinctly, as fast as they ripen. Keep them dry, dark, cool, and out of the reach of vermin. Save finest specimens of beets, turnips, carrots, cabbages, etc., for raising seed next Spring.

**Spinage**—Sow, fl, and thin out, m, ll, for standing over Winter. A small bed sown now will yield early returns at a season when "greens" will be highly valued.

**Squashes**—Save seed of early varieties which are now fully ripened. Gather later sorts as they mature. Secure all from early frosts.

**Strawberries** may still be transplanted, fl, m. They will get a fair start before frost, although August is preferable for making new beds. Give plenty of water to young plants, and keep the surface well loosened.

**Tomatoes** are now in full yield. Market as they mature. They are very easily preserved in bottles, and will be much prized in Winter and early Spring.

**Turnips**—Keep late crops well hoed. Thin out if any are crowded. A dressing of bone dust hoed in will be beneficial.

**Weeds**—Allow none to go to seed upon the premises—it will save much extra labor next year. Gather all which are hoed or pulled up, for the manure heap.

**Winter Cherries**—Collect daily as they ripen, and fall. Preserve those not wanted for immediate use—they make an excellent sauce. They may also be kept enclosed in the hulls, by packing them between layers of cotton.

### Flower Garden and Lawn.

The flower borders and pleasure grounds should lose none of their beauty in September. As if to compensate for a loss in number, many of the late bloomers are richer in their coloring, and finer in their forms than the earlier flowers. Nor do the blooms so soon fade; the frequent rains, heavy dews, and cooler nights, preserve them longer in beauty. The dahlia and chrysanthemum are good examples both of beauty and long continued bloom, while many of the bedding plants have lost none of their charms. That no unsightly objects may meet the eye, go through all the departments once a week, at least, and cut away all flower stalks which have performed their office, except those intended to produce seed. Pick off also the dried up blooms and seed capsules not wanted, which will often throw the plant into flower again, besides making it much more attractive.

The present month is a favorable season to arrange for laying out new grounds. Manure can be applied, the soil plowed, spaded, or trenched, as may be needed, drain tiles put in, and the avenues and walks laid out, so that trees and shrubbery can be set next month.

Towards the end of the month some of the more tender green-house and parlor plants, will need to be returned to their Winter quarters, as even a slight frost or a chilly night would injure them. Care should be taken to guard against too sudden a change from sunshine and air to the shade and closeness of a house. Keep all the ventilators and doors open at all suitable times, and water liberally.

**Bulb Beds**—Make and plant these, m, l. They are easily grown without the elaborate and laborious process often advised in the books. Any good garden soil will answer for bulbs. If wet, drain it, or raise the beds. A little sand, muck, and cow manure well worked into the soil, if compact, fits it to receive the plants. Lay out a bed in any desired form—an oval or circle is a good shape—set crown imperials, hyacinths and tulips in the centre, planting 3 to 4 inches deep and 9 inches apart. Finish with narcissus, crocuses and snow-drops, setting these last 3 inches apart and 1½ inches deep to the crowns. Of course the outer circle should be of the lowest growing varieties, and all should be arranged with reference to the different colors. If sand is easily obtained, place a handful around and over each bulb at the time of setting. In selecting from a collection, choose those which are bright and firm, in preference to any which have begun to grow.

**Bedding Plants**—Many of these, such as geraniums, fuchsias, lantanas, carnations, etc., may be taken up, ll, cut back strong, and set thickly in boxes of earth and placed in a cool, dry cellar to spend the Winter. They will be stronger in the Spring and give a fuller bloom than plants recently made from cuttings.

**Chrysanthemums** require careful staking now, or they will be blown down. Remove weak shoots and prune side branches from those trained to a single stem. A full bloom may soon be expected.

**Cuttings** of both woody and succulent plants should be made early in the month so as to have a full stock to begin the Winter, in-doors. Make the soil light and sandy, insert the cuttings thickly, one third of their length, and cover with a hand or bell glass to prevent rapid drying. A hot-bed frame and sash answer the same purpose. Whitewash the glass for a partial shade, and remove it entirely at night.

**Dahlias** give the finest blooms late in the season when the nights are cool. On this account many prefer late planting. The early ones usually have a few specimens of imperfect flowers during the heat of Summer, and seldom bloom as freely in Autumn as the late planted ones. They should be in their glory during September, and are really a splendid flower although called "common" by some gardeners. Unless well tied to stakes they are blown about and much injured by the high winds which prevail during this month. Pick off the dry flowers, or seed capsules, as fast as the bloom fades.

**Evergreens**—Some planters advocate setting during this month, as there is less liability of a drouth than in Spring. After the losses from those planted in May—owing to the long continued dry weather—the advocates of Fall planting are strengthened in their belief. We still prefer the Spring, but if Fall planting is practiced, set the trees, f, m, in cloudy or wet days, disturbing the roots as little as possible.

**Flower Pits**—Construct, m, ll, for safely keeping tender varieties over Winter, where there are no properly constructed houses.

**Geraniums and Fuchsias**—Cuttings may still be struck in quantity, for a Winter stock.

**Gravel Walks, Drives, etc.**—Keep as free from weeds and grass, and as well raked, as earlier in the season.

**Hedges**—The principal shearing, according to the advice previously given, has been upon the top, so that the bottom is now thick and well set. Shorten in the base and leave for Winter.

**Lawn**—Keep neat and clean, mowing and raking occasionally. Scatter seed over any thin spots.

**Lilies, Peonies, Dicentra, and other perennial bulbous or tuberous rooted plants** which have done blooming, may be divided and reset, m, ll.

**Roses**—Bud, fl, any omitted last month, and still to be changed. Inarching is a more desirable method to introduce several varieties upon one standard. The stocks can be brought in proper positions in pots.

**Seeds**—Watch their ripening and collect before they are wasted on the ground. Mark each package with care.

**Trees** are now ripening the present season's growth and preparing for Winter. Late heading back is not advisable, it induces new shoots which will not harden off sufficiently before cold weather.

**Verbenas and Petunias**—Pot layers, f, m, to preserve a stock for Winter and early Spring bloom. Layers may still be made by simply covering a part of the base of the straggling branches, which readily take root.

**Weeds**—Allow none to seed the ground late in the season. Keep them well hoed up, both on their own account and to stir the soil about the growing plants.

### Green and Hot-Houses.

The first thing to be done this month, is to put the houses, frames, pits and conservatories in perfect order for receiving plants. Give a thorough fumigation and

syringing to destroy insects. Arrange the pulleys, replace the broken glass, batten or otherwise stop any cracks, repair the furnaces, flues, and hot water pipes, cleanse, white wash and paint the wood work so that every thing may be in perfect repair, sweet and clean, for the reception of the Winter plants, some of which will need housing by the middle of the month, or as soon as the mercury falls to 40°. A large quantity of leaf mold, loam and sand should also be collected to use now and during the Winter. If possible have it mixed some weeks before use—months would be still better.—Provide a good supply of pots of different sizes.

Everything being complete, and the paint well hardened, commence bringing in and arranging the plants, f, m, according as the weather is warm, or cool, beginning with the most tender varieties. Place the taller plants on the back shelves, and low kinds in front, bearing in mind at the same time that some varieties require more light than others. Arrange them near or at a distance from the furnace as they need a strong or light heat. A dry shelf should contain those plants which require very little water, including most of the bulbous kinds. Having brought them all in before cool nights have checked their growth, it will be necessary to admit abundance of

Air by the upper and lower ventilators, closing at night during cool weather. The change from a free exposure will be great, at best, and should be counteracted as much as possible by airing freely.

Annuals may be sown at intervals during the month to furnish a variety of bloom in Winter.

**Bulbs**—Pot, fl, m, and keep in a cool place to be taken to the forcing apartments as wanted. They make a fine show when blooming at intervals during the Winter.

**Camellias** should be repotted, fl. They are now beginning to grow and require frequent waterings. It is not too late to bud and inarch.

Fire heat may be needed in some apartments, m, l, to expel dampness and raise the temperature.

**Grapes**—Those in the forcing houses have been cut, and cold grapes are ripening their fruit, while in the retarding houses the berries have not yet begun to color. The treatment must be governed by the different stages of growth, giving little water and abundance of air to those ripening, and frequent syringings to the later ones.

**Potting**—Most of the plants will need repotting when brought in, although they have been growing in pots during the Summer. They will do better with a change of soil, and quite likely they require more room. But the large number of plants set in the borders in the Spring are all to be potted now. They should be shaded after the operation and watered freely. Many of the plants will be benefited by cutting back.

### Apiary in September.

BY M. QUINBY.

Bees will add nothing to their stores, in most places, after the 10th of this month. In a few favored localities, where but few stocks are kept, and an abundance of golden rod is found, they may increase their stores till Oct. As soon as flowers cease to yield honey, the bees will be on the lookout for a supply from other sources. The strongest stocks in the yard are the worst of any. One would think, judging by their actions—that such were on the point of starvation, but it is only the principle of "much wanting more." Every hive should be examined now—it may be too late next week. Bees sometimes deteriorate very fast. It will not do to suppose because a stock was first rate in May, and sent out three or four swarms, that it is therefore in the same condition at this season. See what they are now. All defenceless ones—the weak colonies—should be put out of harm's way at once, before other bees are tempted into bad habits. The neighbors that complain of "first rate hives being robbed," should give seasonable attention to this point. Adopt the rule to expose no refuse honey, or allow no swarms but those strong enough to remain after honey fails. Bees will not begin to rob strong stocks on the start. If it could be understood that the man who had his bees robbed in the Fall, was alone to blame, we should hear less complaint.

A colony too weak to defend its stores now, can not be wintered with all possible attention, and should be put out of the way. Two or three weak ones may be united, when standing near together, and by feeding judiciously, may be wintered. Any hive yet remaining queenless, uninjured by the moth, with stores sufficient for wintering a colony, may have the bees and queen from some condemned stock or swarm introduced. A new swarm that has worked combs without a queen, will have too much drone comb to make a profitable stock, and should be broken up, even though it has stores sufficient for Winter. A part of the honey in such hive, will be beautifully white, while another part will be nearly all bee-bread, not sealed; this is worthless. Another por-

tion will be mixed—some cells partly filled with bee-bread, and finished out with honey and sealed over. This can be readily detected by holding it up to the light. That containing some honey, yet unsuitable for the table, can be fed to light stocks.

In many sections all old stocks should be examined to detect foul brood. Those in which the disease is confirmed, should not be kept as stocks another year. If weak, immediate removal is necessary, to prevent other bees appropriating the honey—it is nearly certain to produce the disease in every hive that gets it. There are some colonies diseased just enough to spoil them for stocks, yet they may be united; but it requires a great deal of care to make such safe from robbers till transferred in the Spring. There must also be some partially filled hives preserved through the Winter to receive the bees. To have the full benefit of the transfer, it should be done in March or April. Without some combs and a few pounds of honey, a colony would not probably do anything. A young swarm, or old colony that has stored only ten or fifteen pounds of honey, intended for this purpose, may stand till next month, that all the brood may be hatched. Contract the entrance so that only one bee can pass at a time, unless it is certain that they are strong enough to repel all robbers. These light hives can be saved to advantage till another swarming season. The brood in them should all be matured, and no dead bees left between the combs. The hive must stand right end up through the Winter, otherwise the honey that leaks out will soak into the wood at the top, and loosen the combs. Let this honey freeze thoroughly through the Winter. If the Fall continues warm, worms may hatch, when it will be necessary to apply the sulphur match to destroy them. There will not be any worms to trouble such hives another year until quite late, making them very valuable for stocks. A hive half filled with combs containing a few pounds of honey, that has a good colony introduced early, will be filled, and cast a swarm about as early as one that has wintered its bees and is already full. Waste no combs that can be made available for the bees another year. Save the white combs for surplus boxes; that too dark for this purpose—unless it contains drone cells—may be fastened into the hives to receive the new swarms. It is worth much more for these purposes than to melt into beeswax.

### The Crops for 1860—Good Prospects for Farmers.

It will be no news to a large proportion of our readers, to report that most farm crops are yielding better this year than for a long time past—they have the proof of this before their own eyes. There are exceptions, however. Were we to form an opinion from our own experience, we should say that crops were never worse. Never have we known so severe a drouth as has prevailed just around us. Yesterday and to-day, (Aug. 13th and 14th,) for the first time since breaking ground in Spring, have we had rain enough to wet down to the lower roots of corn and potatoes. Our fruit and ornamental trees have made scarcely any new growth of wood, and many of those set last Spring, have literally dried up. Potatoes, after a hard struggle, have produced some small tubers, and then succumbed to the parching heat. Early planted corn that got its roots down deep into the soil before the dry season, is doing finely, but the later planted is shriveling, and will not yield half a crop. Winter grains were not greatly injured, as they were far advanced, and the roots too deeply established in a warm, moist, but not over wet soil, to suffer before maturity. Early sown Spring crops got out of the way of the drouth, but everything put into the ground after May 1st has suffered. The grass crop, which needs abundant moisture in Spring and early Summer, has suffered very materially. With us hay is already worth \$18 to \$20 or more per ton, or one-third more than at this time last year.

What we have said of this region, applies to several other limited localities; at some points, in parts of Kansas, for example, the drouth has been so severe, that actual starvation stares many a husbandman in the face. But we are glad to

know that these are exceptions to the general rule. While we and some of our readers must be content with half filled, and even empty barns, we will nevertheless rejoice with the great mass of those who are more fortunate. From almost every part of the country there comes up a general thanksgiving. Never before have there been seen such vast fields of waving corn, whose towering stalks stretch far upward, and are thickly studded with well developed ears. The splendid weather in April and May favored the preparation of the ground, and the planting of a large surface, and it was well improved by farmers. The season has been so exactly adapted to this crop, that it is already advanced almost beyond the contingency of an early frost.

From all we can gather, we judge that in from one-third to one-half of the country, the grass crop was a comparatively moderate one—in some places it was very short—but in the other half or two-thirds, the yield was fair, and the abundance of corn stalks and of straw, if properly cared for, will make up for any deficiency in hay. In some places, wheat is not grown so extensively as in former years, though a larger breadth was sown almost everywhere, than during the previous two or three years. But taking into account the increased amount of land sown to wheat last Fall and in Spring, in the country generally, and the unprecedented good quality of the Spring wheat, we hazard nothing in saying that the wheat crop of the United States for 1860 will exceed that of any former year by many millions of bushels!

A single fact is strongly indicative of the unusually good prospects of farmers. *The direct correspondence between the Agriculturist Office and the cultivators of the country, by far exceeds that of any other newspaper office or other establishment in the world, and the casual remarks which are contained in our letters, written without any commercial end to serve, are the most reliable indications of the real condition of the crops.* Usually, during May, June, July, and August, we are accustomed to read a vast number of complaints of poor crops. Every one suffering from rain, or drouth, or other cause, actually or in imagination, is prone to speak of it to his neighbors, and especially, when writing on business or otherwise to his agricultural paper. *During the present year, our letters containing complaints of this kind, have scarcely been one in a hundred to what they were in the two or three preceding years!* This circumstance is strikingly significant of the general good prospects and consequent buoyant hopes.

And not less important to our cultivators are the market prospects. A large surplus crop on one's hand, would be of comparatively small value, if there were no demand for it, or if only a minimum price could be obtained. But this is not the case now.

The revival in all branches of business, stimulated in part by the agricultural prosperity, and in part by a natural reaction from the depression of the past three years, greatly increases the home consumption; while moderate crops abroad create a large export demand. Within sight of our office are numerous ships loading with breadstuffs for foreign ports, and every water craft that can carry a cargo of corn or wheat across the ocean, is being pressed into service. The prospect, therefore, is, that though the amount of our crops will prevent the rise of prices to the high figures ruling prior to the Fall of 1857, yet it is probable that remunerative prices will be obtained for the surplus breadstuffs our farmers have to part with.

But let no one raise his expectations too high. The country is deeply in debt—resulting from the

mad career of speculation into which ninety-nine out of a hundred were drawn before the crash of 1857. While the good crops of this year will relieve the country from the immediate painful pressure which has weighed us down for many months past, other years of effort, and toil, and economy, will be required to throw off the incubus of debt. While we go to work with greater courage, and higher hopes, let us draw lessons of wisdom from the past. Let us not discount the future—nor borrow to expend now what we hope to have the ability to pay hereafter. Let us write upon the lintels, and post up on every conspicuous object around us, "PAY AS YOU GO!" Let us be content with our present acres until they are our own, and not bind ourselves for more until we surely know how they are to be paid for, which was not the case when our present liabilities were assumed. Let us be content with our present enforced style of living and dress, until our present 'store debts' are liquidated, and we have in hand the means of procuring not indispensable luxury and finery. Put not the price of an acre of wheat or corn, or of a horse or a fat bullock, upon the back in the form of a silk dress, or fine coat, or in household furniture, until the acre of produce is grown, or the bullock fattened, wherewith these articles are to be purchased. Live as comfortably, or as luxuriantly, as you can, but first get out, and then keep out of DEBT!

### Go to the Fairs.

The fair season has already opened, when the treasures of the field and orchard, the garden and hot-house, the sty and the stable, are temptingly displayed under white tents, and in rough board stalls. The very name of fair calls up long loaded tables of luscious fruits, purple clusters of the vine, downy peaches, plums blushing through the powdered bloom, heaps of yellow pears and crimson apples, great rows of bags stuffed with premium wheat and rye, pens of sleek porkers and patient sheep, stalls of neighing steeds and smooth ribbed cattle, and last but not least, acres of good natured men, women, and children, mostly hailing from the farm, and given up to the enjoyment of the festival day. We are sorry to learn that some of the fairs will be altogether omitted this year, and that in many others prudence will compel the absence of all the bovine tribes. Stately Durhams, comely Devons, and homely Alderneys will no more occupy the stalls. The pulmonary murrain is a reality in many of our districts, and it is doubtless the part of wisdom to prevent all unnecessary herding of cattle.

But without this special attraction of our Autumn shows, they are well worth attending. We consider them worth far more than they cost, as a holiday for farmers. As a class we are more overworked, and have fewer opportunities for social gatherings and enjoyment than other people. The farm, as a rule, is short handed, having at least three times as much work on hand as can be done by the present laboring force, and there never seems to come a day of relaxation. The boys can not go a fishing until planting is over, and then they must take a rainy afternoon. Then hoeing is pressing, and the mowing presses still harder, and the scythes are hardly put up for the Summer before the fairs are announced. It is meet after the fatigues of the Summer work are over, that all the sons and daughters of the farm should have a grand rally, and look at each other's faces, as well as at the products of the soil. Old ties of friendship are strengthened, and new acquaintances mutually pleasant and profitable



are formed. The day is a bright spot in the circle, and a thousand pleasant memories cluster around it.

But there is direct utility, as well as social enjoyment in these occasions. It is impossible that the industry of a whole county should be fitly represented at a fair without furnishing many profitable suggestions to every intelligent farmer. Our farms are by no means so well stocked with tools and the best breeds of animals, that there is not room for some kind of improvement on almost every farm. Every one who goes with a disposition to learn, will find something new, some invention saving labor, or some suggestion that will make present processes of labor more productive. The mind will receive a large accession of pabulum for future digestion, and the facts of a day will furnish thoughts for a year.

We say then go to the fairs and take up the wife and children, and have a real good time once in a year. Send up beforehand the best products of the farm, if possible, but by all means go yourself, note book in hand, and use your eyes and pencil when you get there.

#### A Hay Crop Saved by a Barometer.

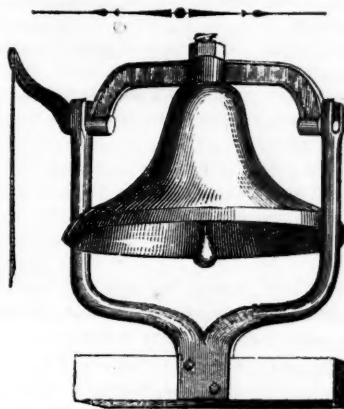
"John Underwood, Esq., of Aurelia, N. Y., secured his entire crop of hay this Summer by consulting the barometer. The morning on which he commenced cutting his hay, looked cloudy and felt like rain, still the barometer pointed unerringly to dry weather, and on the strength of that he sent in his mowing machine. The hay was cut, cured, and secured, before any rain made its appearance. But for the barometer, the hay would have been standing at this time. Who doubts that the instrument paid for itself by that item of information? The time is coming when the farmer will as soon think of returning to the scythe, as to be without the infallible weather prophet, the barometer.—*Auburn Advertiser.*"

The above is putting the case rather strongly; it is not probable that "but for the barometer the hay would have been standing at this time," for there was plenty of hot, dry weather following the morning referred to; but we doubt not that the barometer was of great utility at the time mentioned, and that a day's time was saved, and the hay gathered in superior order. Since we commenced making daily observations upon the aneroid barometer, described last month, we have been impressed more strongly than ever before, with the great utility and importance of this instrument to farmers. During the dry weather, prevailing here all through June, and nearly through July, the barometer index remained almost steadily at a point above 30 inches, though every slight shower that fell, was indicated by a rapid declension of the index hand, from two to ten hours in advance. The other day, we remained at home writing until after dinner, and then went down to our city office. The sky being clear, with no indications of rain, we went thinly clad from head to foot. "On reaching the office, clouds had begun to gather, and the barometer had fallen nearly half an inch, which our associate informed us, had occurred within an hour. We obeyed its injunction, and started at once for home, and had scarcely arrived there, before a heavy fall of rain commenced, accompanied with thunder and a strong wind. The barometer in that case certainly saved us a disagreeable wetting, and perhaps a cold. This is only one of several similar instances of the positive indications of rain, which have been given by our barometer during a few weeks past.

The contrary indications have been scarcely less marked, for several times there has been every sign of rain in the heavens, when the barometer remained unmoved, and in no such

case has rain fallen. Here is one example. We had planned to take our family to see the Great Eastern early on the morning of July 25. On rising in the morning, the sky indicated a rainy day, and we were in doubt whether to defer the visit or not. A glance at the barometer showed no change in the index for 24 hours, and we determined to follow its indication. The result was, we had a fine day, and an instructive and pleasant visit to the "big ship." As it turned out, we could not have gone on any subsequent day of her stay, and but for our barometer, would have lost the opportunity of inspecting her.

We particularize the above instances, to illustrate the practical utility of the barometer. The truth is, science is continually contributing in a thousand ways not only to comfort and convenience, but also is aiding in more successfully performing the various operations of active life.



Farm Bells.

"Call me anything you like, if you don't call me too late to dinner," is the rather stale but expressive adage of the farm laborer, and of the mechanic as well. We have not forgotten the old tin-horn whose mid-day "toot" had, at that particular hour, more music in it than the finest toned organ. A neighbor's bellowing conch shell, brought from the sea-board to our western wilderness, was an enviable piece of household furniture, in more respects than one; but it needed the owner's stout lungs and long practice, to make it effective over the farm a mile in length. On some occasions, when the wind, or the great distance rendered the long tin-horn useless, the white flag in the chamber window, or vigorously waved by the housemaid who had climbed to the top of the wood-pile, was literally a "flag of truce"—to the struggle with hard work.

But the tin-horn, the conch, and the white or red flag—one or the other of which is inseparably connected with every one's remembrance of farm life as it was—are fast giving way to the modern improvement of farm bells, which, suspended upon the house ridge, or upon a supporting pole, are now as common on the larger farms in the older sections of the country, as the church-going bell is upon the "meeting-house." Brass, or steel bells, or triangles, costing 25 to 50 cents a pound, are, however, yet too expensive for general use; and they are no longer needed. By a recent invention, very good bells are now made almost entirely of cast iron, hardened and refined by some peculiar process, and slightly amalgamated with a small quantity of some other material, we believe. The sketch given herewith, is taken from one of these bells, weighing 50 lbs., which we have seen retailing for \$8, including the yoke, standard, and crank, and a "warranty" for one year. This is only 12 cents a pound for the bell, and at this price

they are being rapidly manufactured of various sizes, for farms, school-houses, steamboats, factories, and even for churches. We hear of one being made for a church in New-Jersey, which weighs 5,000 lbs.

A farm bell suspended near the dwelling, is certainly a convenience, not only to call the "men" to dinner, *en masse*, but also to regulate the hours of work. Agreed signals, such as a ring followed by a single stroke, or by two, or three, or more, or by tolling, and other variations, will serve the purpose of a farm telegraph, to communicate intelligence, to call any particular man or boy, to give notice of the swarming of bees, sickness, etc., etc. The low price of these new bells will tend to their general introduction.

#### The Italian Bees—Improving Bees by Breeding—Stingless Bees.

We are yet unable to offer any well founded opinion, as to whether the recently imported Italian Bees will prove really superior to our common native bees, or not. They are being rapidly propagated and diffused over the country, and to secure this result the main effort is now directed. Another season will be required to determine their merits. The fact that so many of our older aparians have considerable confidence in them, argues well in their favor. We have watched their multiplication from a single swarm, and if the rate of increase be as great at other points to which the queens are being daily dispatched, it will not take long to fill the country with them—if such a consummation be desirable. Below we give an extract from a letter dated Aug. 10, written by Mr. E. A. Brackett, the well known Sculptor, who is an enthusiastic amateur in bees also. His suggestion in regard to improving bees by care in selecting breeding queens, is worthy of attention. All kinds of domestic animals have been brought to a much higher standard by special care in breeding. Why may not our common bees be in like manner improved? No attention has been given to this subject, so far as we know. Let some of our bee-keepers try the experiment.

Who knows but that in a few years we may get a race of bees that shall rival the humble-bee in size, and in ability to extract sweets from a large class of deep tubed flowers, such as the red clover, and others, which are now useless for the common honey bee. We hope, those who undertake this enterprize, will remember to try to breed out their stings. From a honey-bee of the size of a humblebee, with the sting developed in proportion, may the fates deliver us. (Talking of stingless bees, we may mention, that our friend A. O. Moore, Esq., who recently returned from a tour of several months in Central America, brought with him two varieties of stingless bees, which he left in our office for several days. They are quite peculiar and interesting, and we hope to give a further description of them, with engravings of their appearance, mode of depositing honey, etc.) Here is the extract from Mr. Brackett's letter referred to above:

"...I think it too soon to form any certain opinion in regard to the Italian bees in this country. We must, therefore, still in a great measure depend on the statements of German bee-keepers, and that is universally in favor of their great superiority over the black bee. Dzierzon states, that since he has Italianized his apiaries, his yield of honey has been double that obtained from the same number of common bees. My experience, thus far, satisfies me that they have

not been overrated. The queens are larger and more prolific. The workers, when bred in comb of their own building, are longer, and their honey-sacks larger. They are less sensitive to cold, and more industrious. In all my handling of them, (and I have done so pretty freely, lifting the combs, and examining them almost daily,) I have never known one to offer to sting.—A queen that I received in June, and introduced to a strong stock of bees, in eleven days filled thirteen sheets of comb with brood and eggs. There is at present scarcely a black bee in the hive, so rapid has been the change. Although I have taken from it large quantities of worker brood and sealed drones, the hive is still overflowing.

Allow me to suggest to you an idea, that may be of importance. These bees come from the Italian Alps, where they have received little or no attention. They are in a state of nature, susceptible, in my opinion, of great improvement, (at least as far as form and color goes,) by culture and careful breeding. In order to do this, they should be allowed to build their own comb, as soon as may be, and the largest and best colored queens be selected to breed from—avoiding breeding in-and-in as much as possible.

I have received a letter from a friend, stating that one of his queens is quite dark; and he seems troubled about it. A little knowledge, if not a dangerous thing, is sometimes an uncomfortable one. Every one at all familiar with the common black bees, knows very well, that their queens vary much in color, and I see no reason why the Italians should not do the same within certain limits, and still be true to the race. Those who are anxious to have high colored queens, must resort to careful breeding...."

#### Hints on Sowing Wheat.

The diminished ravages of insects, and the promise of remunerating prices as the country recovers from its financial depression, will doubtless lead to much greater attention to wheat growing. The prospect is, that more ground will be sown to wheat this month than in any former September since our country was settled. A few hints to those about to sow wheat may be useful.

Prepare the ground well. If man and team labor be not abundant, better concentrate your efforts upon twenty acres, than to 'run over' twenty five. The yield from the smaller area well prepared, will be quite as great as upon the larger one poorly tilled, and you will save the seeding and harvesting of the extra five acres. A thorough pulverizing of the surface with the plow and harrow, and with the roller if needed, is of great advantage to wheat. One good plowing, turning the surface deeply under, is desirable, whether for Summer fallow or corn land. Let the after plowing and harrowing be shallow, to avoid disturbing sods, stubble, and weeds turned under.

All soils liable to standing water in Winter or Spring, should be thrown into ridge lands twelve to twenty feet wide—the wetter the land, the nearer should be the ridges and furrows. When all is complete, the dead furrows should be deeply and thoroughly cleaned out with plow and hoe, so that all surplus water will flow off. This is a most important point. It is the alternate thawing and freezing of water-soaked soils that produces winter-killing. Water expands and contracts greatly at every change of temperature, and thus breaks and tears the roots of Winter crops, sometimes killing the plants entirely, and always injuring them more or less. On well drained land, wheat is never winter-killed, and seldom fails to start off vigorously in Spring.

Sow the largest, plumpest seeds. On this point see remarks under manures, last month, page 228. If possible, run seed wheat over a coarse screen that will take out all small kernels, and foul stuff. It is better to always sow wheat with a drilling machine. If sown broadcast, take the greatest care to distribute the kernels evenly. Half a bushel of seed, sown uniformly over the ground, and covered uniformly, will produce more than two bushels sown hap-hazard. One seed, with plenty of room to receive air and sun-light, will produce more and better grain than three or four seeds planted side by side.

Sow wheat early. Nature sows her seed as it falls from the previous crop. Reason, and universal experience are in favor of putting the seed into the ground as early as possible after the previous crop is secured. This enables the plants to become well established, and thus be better able to withstand Winter. Early wheat also gets ahead of many of the insect tribes.

Manure seldom fails to pay its cost and a hundred per cent interest—that is on all soils not already fully supplied with organic matters. It will not, of course, pay to buy manures for new land where there is already an accumulation of vegetable matter. Lime or ashes generally show good effects on this class of soils. On older fields, plaster, Peruvian guano, and bone sawdust, are valuable, where stable manure is scarce. We do not believe it pays to buy the mineral manures so industriously pushed upon wheat growers.

For the American Agriculturist.

#### Shall we Sow Wheat?

This question is asked by those living where, they say: "Once as large and as fine crops of this grain were raised here as could be found, but of late years the yield has been so poor as to scarcely pay for harvesting, and hundreds of acres formerly devoted to wheat, are now sown with rye." Several causes are assigned for this failure. Some are of opinion that wheat can be grown only upon virgin soils; that in a few years the fertility, or those elements necessary for this special grain, are exhausted, and we must look to the newer land of the West for wheat, the most important of breadstuffs. Others say insects, particularly the midge, have taken possession, and render useless all attempts to secure a paying crop. The abundant yield generally obtained by those who ventured a trial last Fall, has attracted attention to the subject, and awakened a desire to venture again.

It may be safely laid down as a general principle in agriculture, that influences unfavorable to the production of a crop that has at one period flourished well, may be overcome by proper application of skill. Doubtless the virgin soils of which correspondents write so regretfully and with such fond recollections of the good old times when thirty bushels of wheat was a sure thing, have deteriorated from their former productiveness. Under the too prevalent system of farming pursued in past years, the only wonder is that they should have held out so long. From time immemorial these lands had been receiving a yearly dressing of leaves from the forests that waved above them, where the thick growth prevented much ripening of seed and consequent exhaustion of the soil, which was thus year by year receiving more than it gave out, and accumulating the rich stores of plant-food which have since been transformed to golden harvests, and removed to the barn and the market. Seed-bearing is from its very nature most ex-

haustive of fertility. The seed is the condensed nutriment stored for the wants of the young plants that are to succeed it—and when year after year we remove from three quarters of a tun to a tun of wheat, we take away so much of what may be termed the very essence of fertility in the land. Had a proper system of manuring been kept up year by year, the wheat crop need never have failed from this cause. As it is, not one, nor three, nor scarcely seven years will suffice to bring up the soil to the strength necessary to give those "good old-fashioned crops of wheat, we read of." For we have not only to apply the raw material, but it must be thoroughly worked over and over, and completely incorporated with the soil, making it one homogeneous, fertile mass, before the wheat roots can feel at home. Until this, the original state before cropping, exists, they must go hunting around among the exhausted particles for now and then a rich deposit, and be alternately starved and surfeited. Were it possible to sift together one foot in depth of the surface soil and the requisite quantity of finely divided manure, we should see from ground so prepared, a crop that would make even old wheat-growers laugh for joy. This we can do gradually year by year. We may well begin by subsoiling and draining, lowering the water line, giving the roots a chance to enter new pasture ground still fertile, and then by thorough manuring and cultivating the surface, restore exhausted fertility there. The renovation of worn out wheat fields must date principally from the increase of the manure heap; for full particulars, inquire at the muck deposits and the waste leakage of the barn yard.

But the wheat flies, those almost microscopic insects, which by their formidable numbers have fairly driven us from the field—can their ravages be prevented? Thanks to the researches of entomology, and the experiments of observing agriculturists, we have learned to circumvent them. Wheat brought to early maturity, suffers comparatively little from their attacks. The insect deposits its eggs about the time wheat ordinarily is coming into bloom, and the larvæ hatch out in time to feed upon the young kernel before it hardens. By hastening the blooming period a week or ten days, the grain will be sufficiently advanced, in most instances, to resist the efforts of the midge to obtain sustenance, and the danger will be averted. We need then early varieties of wheat. Recent experiments show that wheat brought from the South retains its early ripening propensity for two or three years at least. Several sorts have naturally an early ripening period. The Mediterranean, White Mediterranean, Early May, and Dayton are all well spoken of; the first named variety has for years been a favorite, though not equal in quality to some others. The Soules variety if seed could be obtained from Southern districts would be likely to do well.

Early sowing on land properly drained and manured, will tend to insure earlier maturity of any sort, and if in addition to this, care were exercised to select seed year by year from the earliest ripening portions of the field, there is little doubt that wheat could be put out of danger of the midge. In this latitude I advise putting in the crops early in September, and South as far as 40° every thing should be completed before the first of October. Believing then that the two great obstacles to successful wheat growing may be removed, I say let its culture be undertaken again; but not unless the producer is willing to take the pains necessary to insure success.

GENTEE.



## Agricultural Exhibitions for 1860.

[The following list includes all the forthcoming Exhibitions reported to the office of the *American Agriculturist* up to August 20th. They are arranged in order of time—the figures denote the opening and closing days.]

## STATE EXHIBITIONS.

Name.	Where held.	Date.
National Horse Show.	Springfield, Mass.	Sept. 4-7
Kentucky Central.	Danville.	4-7
New-Jersey.	Elizabeth.	4-7
Tennessee.	Nashville.	10-15
Illinois.	Jacksonville.	10-15
Am. Pomological Society.	Philadelphia.	11-14
Vermont.	Burlington.	11-14
National Horse Show.	Kalamazoo, Mich.	11-14
U. S. Agricultural Society.	Cincinnati.	12-20
N. E. Kentucky.	Ashland.	18-20
Kentucky.	Bowling Green.	18-22
Nebraska.	Omaha.	19-21
California.	Sacramento.	19-26
Wisconsin.	Madison.	24-27
Pennsylvania.	Wyoming.	24-27
Tennessee Central.	Franklin.	24-28
Missouri.	St. Louis.	24-29
Ohio.	Dayton.	25-28
Maine.	Portland.	25-28
Minnesota.	Fort Snelling.	27-29
Missouri Central.	Booneville.	Oct. 1-5
New-Hampshire.	Manchester.	2-4
Iowa.	Iowa City.	2-5
Michigan.	Detroit.	2-5
New-York.	Elmira.	2-5
Missouri S. E.	Cape Girardeau.	11-13
Indiana.	Indianapolis.	15-20
Mississippi.	Holly Springs.	16-19
North Carolina.	Richmond.	22-27
Virginia Central.	Atlanta.	23-26
Alabama.	Montgomery.	29-Nov. 2
Maryland.	Baltimore.	30-6
South Carolina.	Columbia.	Nov. 13-16
Lower Georgia.	Savannah.	23-
Geo. Cotton Pl's Conv'n.	Macon.	Dec. 3-22

## COUNTY EXHIBITIONS.

CALIFORNIA.		
Sonoma.	Petaluma.	Sept. 4-7
Santa Clara.	San Jose.	18-21
Contra Costa.	Martinez.	25-27
Bay District.	San Francisco.	Oct. 4-9
CONNECTICUT.		
Windham.	Brooklyn.	Sept. 12-14
GEORGIA.		
Hancock.	Sparta.	Oct. 16-20
ILLINOIS.		
Cass.	Virginia.	Sept. 4-7
Jo. Daviess.	Galena.	11-14
Carroll.	Mount Carroll.	17-19
Livingston.	Pontiac.	18-20
Hancock.	Carthage.	19-21
Rock Island.	Rock Island.	19-21
Whiteside.	Morrison.	19-21
LaSalle.	Ottawa.	25-28
Ogle.	Oregon.	25-28
Knox.	Knoxville.	25-28
Stephenson.	Freeport.	26-28
Tazewell.	Tremont.	26-28
Dupage.	DuPont.	26-28
Lee.	Dixon.	Oct. 1-5
Macon.	Decatur.	1-5
Lake.	Libertyville.	2-3
Pike.	Pittsfield.	2-4
Scott.	Winchester.	2-4
Macoupin.	Carlinville.	2-5
Peoria.	Peoria.	2-5
Putnam.	Hennepin.	2-5
Adams.	Quincy.	2-5
Henry.	Cambridge.	3-5
Monroe.	Waterloo.	16-18
INDIANA.		
Union.	Russellville.	Sept. 3-8
Lawrence.	Bedford.	4-
Monroe.	Bloomington.	4-6
Fayette.	Connorsville.	4-7
Dearborn.	Lawrenceburg.	10-11
Putnam.	Greencastle.	10-14
Rush.	Rushville.	11-14
Shelby.	Shelbyville.	11-14
Washington.	Salem.	11-14
Clark.	Charlestown.	12-14
Ripley.	Versailles.	18-20
Montgomery.	Crawfordsville.	18-21
Decatur.	Greensburg.	18-23
Laporte.	Laporte.	19-20
Allen.	Fort Wayne.	19-21
Morgan.	Centerton.	25-28
Miami.	Peru.	26-28
Jasper.	Kennelsburg.	26-28
Sullivan.	Carlsle.	26-28
Wells.	New Harmony.	Oct. 2-3
Posey.	Vermilion and Parke.	2-5
Warwick.	Booneville.	2-6
Martin.	Dover Hill.	3-
Noble.	Albion.	3-4
Whitley.	Columbia City.	3-5
Kosciusko.	Warsaw.	3-5
Staub.	Angola.	4-5
Orange.	Livonia.	8-13
Gibson.	Princeton.	9-12
Spencer.	Rockport.	10-11
Fountain.	Attica.	10-12
Fulton.	Rochester.	12-13
MARYLAND.		
Frederick.	Frederick.	Oct. 16-19

IOWA.		
Jackson.	Andrew.	Sept. 19-20
Marshall.	Marietta.	19-21
Warren.	Indianola.	20-21
Poweshieck.	Montezuma.	22-23
Delaware.	Delhi.	25-27
Bremers.	Waverly.	26-27
Appanose.	Centerville.	Oct. 5-6

KENTUCKY.		
Clark.	Winchester.	Aug. 30 Sept. 1
Bourbon.	Paris.	Sept. 4-7
Harrison.	Cynthiana.	8-13
Warren.	Bowling Green.	18-22

MAINE.		
Hancock.	Ellsworth.	Sept. 26-27
West Washington.	Jonesboro.	27-28
Androscoggin.	Lewiston.	Oct. 2-4
North Arundel.	Presque Isle.	3-4
Piscataquis Central.	Dover.	3-4
Franklin.	Farmington.	3-5
Sagadahoc.	Topsham.	9-11
Kennebec.	Readfield.	9-11
Waldo.	Belfast.	10-12
Oxford Union.	East Summer.	16-17

MASSACHUSETTS.		
Highland.	Middlefield.	Sept. 13-
Middlesex North.	Lowell.	13-
Middlesex South.	Framingham.	18-19
Hampden East.	Palmer.	18-19
Middlesex.	Concord.	20-21
Hampden West.	Springfield.	21-
Bristol Central.	Myricks.	25-26
Essex.	Danvers.	25-
Worcester North.	Fitchburg.	25-
Housatonic.	Great Barrington.	26-27
Worcester West.	Barre.	27-
Norfolk.	Dedham.	27-28
Franklin.	Greenfield.	27-28
Bristol.	Taunton.	Oct. 2-3
Worcester.	Worcester.	2-3
Berkshire.	Pittsfield.	2-3
Barnstable.	Barnstable.	9-10
Worcester S. E.	Milford.	9-10
Hampshire, Franklin and Hampden.	Northampton.	11-12
Plymouth.	Bridgewater.	11-12
Worcester South.	Sudbury.	11-12
Hampshire.	Amherst.	11-12
Nantucket.	Nantucket.	11-12
Martha's Vineyard.	West Tisbury.	16-

MICHIGAN.		
Lenawee.	Adrian.	Sept. 25-27
Lapeer.	Lapeer.	25-27
Ingham.	Mason.	26-27
Berrien.	Niles.	26-28
Macomb.	Utica.	26-28
St. Joseph.	Centerville.	26-28
Sanilac.	Lexington.	27-28
Van Buren.	Paw Paw.	28-29
Oakland.	Pontiac.	Oct. 10-12
Washtenaw and Wayne.	Ypsilanti.	10-12

MISSISSIPPI.		
Marshall.	Holley Springs.	Oct. 2-5
Lowndes.	Columbus.	9-12
De Soto.	Hernando.	9-13
Franklin.	Meadville.	11-13
Monroe.	Aberdeen.	16-19
Warren.	Vicksburg.	16-19
Osborne.	Starkville.	22-25
Chickasaw.	Okalona.	23-26
Grenada.	Grenada.	Oct. 30 Nov. 2
Pontotoc.	Pontotoc.	30-2
Attala.	Liberty Chapel.	Nov. 1-3
Panola.	Panola.	6-8
Jefferson.	Rodney.	6-9
Scott.	Hillsboro.	7-8
Pike.	Summit.	7-9
Choctaw.	Bankston.	9-10
Claiborne.	Port Gibson.	13-16

MISSOURI.		
Newark.	Newark.	Sept. 3-7
Saline.	Miami.	4-8
Jackson.	Independence City.	4-9
Gasconade.	Hermann.	5-6
Clinton.	Plattsburg.	11-14
Platte.	Platte City.	25-30
Cass.	Pleasant Hill.	26-29
Lafayette.	Lexington.	Oct. 2-6
Clay.	Liberty.	2-7
Osage.	Linn.	4-5
Franklin.	Meadville.	11-13

MINNESOTA.		
Winona.	Winona.	Sept. 19-21

NEW-HAMPSHIRE.		
Carroll.	Ossipee.	Sept. 19-20
Grafton.	Littleton.	19-20
Rockingham.	Portsmouth.	19-20
Hillsboro.	Ware.	20-21
Cheshire.	Keene.	25-26
Merrimack.	Concord.	26-28
Merrimack River.	Nashua.	Oct. 10-11

NEW-JERSEY.		
Somerset.	Somerville.	Sept. 11-13
Warren.	Belvidere.	11-14
Sussex.	Newton.	Oct. 2-5

NEW-YORK.		
Saratoga.	Saratoga Springs.	Sept. 4-7
Tompkins.	Ithaca.	5-7
Clinton.	Plattsburgh.	10-11
Cayuga.	Sherwood's Corners.	11-12
Chautauq (Union).	Trumansburg.	11-13
Broome.	Jamestown.	11-13
Franklin.	Lisle Village.	11-13
Wayne.	Clyde.	12-

Jefferson (Union).	Adams.	12-13
Chenango.	Afton.	12-13
Cayuga.	Auburn.	12-14
Genesee Valley.	Nunda.	13-15
Genesee.	Batavia.	18-16
Oswego.	Mexico.	18-20
Albany.	Albany.	18-21
Queens.	Jamaica.	19-
Jefferson.	Watertown.	19-21
Wyoming.	Warsaw.	19-20
Rensselaer.	Lansingburgh.	19-23
Cortland.	Virgil.	20-22
Oneida.	Utica.	25-26
Susquehanna Valley.	Unadilla.	25-26
Westchester.	Mt. Kisco (New Castle).	25-27
Putnam.	Brewster's.	25-27
Cattaraugus.	Little Valley.	25-27
Lewis.	Turin.	25-27
Delaware.	Hobart.	26-27
Madison.	Brookfield.	26-27
Essex.	Elizabeth.	26-27
Otsego.	Cooperstown.	26-27
Chautauq (Union).	Fredonia.	26-28
Tioga.	Owego.	26-28
Onondaga.	Syracuse.	26-28
Livingston.	Genesee.	26-28
Monroe.	Rochester.	26-28
Ontario.	Canandaigua.	26-28
St. Lawrence.	Canton.	26-28
Townsend Valley.	Attica.	26-28
Ulster.	Kingston.	26-28
Seneca.	Watertown.	26-28
Niagara.	Lockport.	26-28
St. Lawrence (International).	Ogdensburg.	26-28
Monroe (Union).	Brookport.	Oct. 2-3
Wayne (Union).	Palmyra.	2-4
Oxford.	Oxford.	2-4
Chenango.	Coventry.	3-4

TOWN FAIRS.		
Clymer.	Clymer.	Sept. 5-6
Busti Union.	Busti.	6-7
Smithville.	Smithville.	6-7
Ridgeway and Shelby.	Medina.	12-11
China.	Arcade.	13-14
Gouverneur.	Gouverneur.	18-19
Vienna.	North Bay.	18-19
Seneca Falls.	Seneca Falls.	18-20
Skaneateles.	Skaneateles.	25-
Brookfield.	Clarkville.	26-27
Sherburne.	Sherburne.	26-28
Columbus.	Columbus.	Oct. 2-4
Camden.	Camden.	3-4

OHIO.		
Brown.	Georgetown.	Sept. 4-7
Fayette.	Washington.	5-7
Portage.	Ravenna.	5-7
Warren.	Lebanon.	5-7
Gallia.	Gallipolis.	11-12
Ashtabula.	Jefferson.	11-13
Clermont.	Bantam.	11-14
Trumbull.	Warren.	11-14
Pickaway.	Circleville.	12-14
Medina.	Medina.	18-20
Clinton.	Wilmington.	18-20
Brown (Independent).	Ripley.	18-21
Clermont.	Oliver Branch.	18-21
Greene.	Xenia.	18-21
Muskingum.	Zanesville.	18-21
Preble.	Eaton.	18-21
Miami.	Piqua.	18-21
Highland.	Hillsboro.	18-21
Vinton.	McArthur.	19-20
Defiance.	Defiance.	19-21
Delaware.	Delaware.	19-21
Knox.	Mount Vernon.	19-21
Madison.	London.	19-21
Adams.	West Union.	25-28
Belmont.	St. Clairsville.	25-28
Geauga.	Burton.	25-28
Columbian.	New Lisbon.	26-28
Jackson.	Jackson.	26-28
Tuscarawas.	New Philadelphia.	26-28
Union.	Marysville.	26-28
Guernsey.	Cambridge.	27-28
Greene (Union).	Jamestown.	29-31
Clark.	Springfield.	Oct. 1-5
Wood.	Perryburg.	2-3
Carroll.	Carrollton.	2-4
Mahoning.	Cantfield.	2-4
Sandusky.	Fremont.	2-4
Summit.	Akron.	2-4
Cuyahoga.	Cleveland.	2-5
Richland.	Mansfield.	2-5
Logan.	Bellevue.	2-5
Darke.	Greenville.	2-5
Lucas.	Toledo.	3-5
Crawford.	Bucyrus.	3-5
Harrison.	Cadiz.	3-5
Geauga (free).	Claridon.	3-5
Hocking.	Logan.	3-5
Lake.	Painesville.	3-5
Lawrence.	Ironton.	3-5
Licking.	Newark.	3-5
Lorain.	Elyria.	3-5
Marion.	Marion.	3-5
Morgan.	McConnellsville.	3-5
Ottawa.	Port Clinton.	3-5
Putnam.	Ottawa.	3-5
Seneca.	Tiffin.	3-5
Washington.	Marietta.	3-5
Wayne.	Wooster.	3-5
Williams.	Bryan.	3-5
Butler.	Hamilton.	3-5
Hancock.	Findlay.	4-6
Stark.	Canton.	4-6
Champaign.	Urbana.	9-12
Coshocton.	Coshocton.	10-11
Wyandot.	Mount Gilead.	10-12
Fairfield.	Upper Sandusky.	10-12
Ashland.	Lancaster.	10-12
Paulding.	Junction.	11-12
		25-26

## TOWN AND INDEPENDENT FAIRS.

Horse Fair.....	Cleveland.....	Sept. 5-7
Union Society.....	Cuyahoga Falls.....	5-7
Wellington.....	(Lorain Co.).....	10-12
Wheeling Island.....	Virginia.....	11-13
Twinsburgh.....	(Summit Co.).....	12-13
Salem.....	(Columbiana Co.).....	12-14
Madison.....	(Franklin Co.).....	18-20
Belmont.....	(Belmont Co.).....	18-20
Alliance.....	(Alliance Co.).....	20-22
Belleville.....	(Richland Co.).....	24-26
Hirckley.....	(Medina Co.).....	25-28
Philadelphia.....	Philadelphia.....	25-28
Plymouth.....	(Richland Co.).....	26-28
Richfield.....	(Summit Co.).....	26-28
Conneaut.....	(Ashtabula Co.).....	27-28
Mariboro.....	(Stark Co.).....	29
Orwell.....	Ashtabula.....	Oct. 1-3

## PENNSYLVANIA.

Allegheny.....	Pittsburg.....	Sept. 4-7
Philadelphia.....	Powerton, (W. Phila.).....	25-28
Berks.....	Reading.....	25-27
Bucks.....	Newtown.....	26-27
Highland (Cambria Co.).....	Johnstown.....	27-29
Lawrence.....	Newcastle.....	Oct. 2-4
Montgomery.....	Springtown.....	2-4
Indiana.....	Indiana.....	3-5
Crawford.....	Conneautville.....	3-5

## TENNESSEE.

Marshall.....	Lewisburg.....	Sept. 11-14
Sumner.....	Gallatin.....	17-22
Bedford.....	Shelbyville.....	18-22
Smith.....	Rome.....	26-29
Putnam.....	Cookville.....	Oct. 1-4
Maury.....	Columbia.....	1-6
Warren.....	McMinnsville.....	9-11
Giles.....	Pulaski.....	9-12
Shelby.....	Memphis.....	9-12
Gibson.....	Trenton.....	10-15

## VERMONT.

Addison.....	Middlebury.....	Sept. 5-7
Rutland.....	Rutland.....	6-7
Caledonia.....	St. Johnsbury.....	25-28

## WISCONSIN.

Badax.....	Viroqua.....	Sept. 10-12
Racine.....	Union Grove.....	11-13
Wapaca.....	Weyauwega Village.....	13-14
St. Croix.....	Hudson.....	18-19
Jackson.....	Albion.....	18-19
Columbia.....	Cambria.....	19-20
Winnebago.....	Oakosh.....	19-20
Sheboygan.....	Sheboygan Falls.....	19-20
Waushara.....	Waubesa.....	26-27
Monroe.....	Sparta.....	26-27

## PROVINCIAL FAIRS.

## CANADA WEST.

Oxford, (Norwich).....	Otterville.....	Oct. 6-9
Wellington.....	Fergus.....	9

## CANADA EAST.

Stanstead.....	Magog.....	Sept. 15-16
Broome.....	Knowlton.....	16
Shefford.....	Waterloo.....	19
La Prairie.....	St. Constance.....	20
Huntingdon.....	Huntingdon.....	25
Campton.....	Eaton Corner.....	27
St. Johns.....	St. Johns.....	27
Ottawa.....	Aylmer.....	27
Levis.....	Notre Dame.....	Oct. 2
Maskinonge.....	River du Loupe.....	2
Mont Calm.....	St. Ligouri.....	3
Pontiac.....	Clarendon Center.....	4

## Another "World's Fair," in 1862—A Hint to Railroad Managers.

Active preparations are already on foot for holding another World's Fair, or International Exhibition, in London, in 1862, in the same place, and on a similar plan with that of 1851. We have before us a subscription list to a guaranty fund which, up to the 1st of August amounted to £350,000, or about 1½ million dollars! Prince Albert, the Royal Consort, heads the list with £10,000 (\$50,000). The several London Railways subscribe £80,000 or \$400,000! This is a hint to the Managers of American Railways. While some of them have always acted upon the true policy of fostering agricultural exhibitions, by liberal contributions, by carrying and returning stock and other articles free, and by the issue of excursion tickets, there are others who act upon the "penny-wise pound-foolish" plan of withholding all aid or encouragement. There are few cases where a railroad, by contributing a few hundred dollars to aid in getting up a good agricultural show at any point along its line, would not receive back ten-fold. Some railroad managers are always wide awake to all such enterprises and the result is seen in the healthy financial condition of the roads under their care. Others turn the cold shoulder to

anything out of the regular routine, and the share, or more frequently the bond holders take the consequences. We commend to such the example of the London railroads. We have in mind one railroad where the superintendent and the conductors even, are the foremost actors in every exhibition, excursion, etc., and the result is, the stock is so valuable that none of it can be bought in market.



"Dog-o-Phobia."

A subscriber, the owner of a big dog we suppose, don't like our articles against the canine species, and wants to know if we "havn't got an attack of the dog-o-phobia." To which it is answered: *we have*, and you would have it too, had your experience been like our own. Here is an item or two from that experience: We yet carry abundant scars of an unmerciful "chewing up" received from a dog that attacked us when a boy, quietly walking along the public street, without so much as a knowledge of the animal's existence until the attack. We make frequent sacrifice to these scars by furnishing free doses of strichnine or lead to dogs that wander upon our premises. Another item: one of the first attempts to introduce an improved breed of sheep into the Western country was made on our paternal homestead, and it was done at a large cost. The experiment was just beginning to be successful, when one Sabbath morning while the family were at breakfast, *twenty seven* of the sheep were murdered by two strolling dogs. We followed the dogs in a round-a-bout wild goose chase of 11 miles on a cold Winter day, and finally lost track of them in the drifting snow. We are looking for the owners yet. This single case is but a tith of what we have lost by sheep-killing dogs. On one occasion we had to pay \$10 for killing a dog found feeding at day-break, a mile from home, on 12 lambs slaughtered by somebody's dog on the preceding night. The dog-loving referees decided that the dog we had killed, was proved to have a good character previously, and that it was nothing against his credit to be found eating carrion—any good dog would do that. It cost us the then price of six sheep to pay for that dog. Will anybody point us to a single neighborhood where some one has not suffered from dogs? Will any one deny our previous statement that so profitable a branch of agricultural enterprise as sheep raising, would receive double the attention it now does, if dogs were out of the way? *We have got the dog-o-phobia.* See what Governor Randall of Wisconsin says on page 271.

P.S.—A SIXTEEN-HUNDRED-DOLLAR DOG.—Since penning the above we have heard from Paterson, N. J., to this effect: A single dog bit a large

number of cattle in the vicinity of the Two Bridges, near that city, of which *twenty one* have been attacked with hydrophobia, and *twenty* of these are already dead. Besides these, a number of others are supposed to have been bitten by the same dog. Seven belonging to Cornelius Van Ness, and three belonging to widow Stuart, are known to have been bitten. The owners of these ten are looking for the breaking out of the dreaded disease. The positive loss already experienced from this one dog is estimated at not less than *sixteen hundred dollars!* Will the Census man please send us an accurate value-list of all the dogs in Paterson? *We have got the "dog-o-phobia,"* and the disease is getting worse.

## Pass Brother Harris Along.

Satan rebuking sin!—"Prof." James J. Mapes "L. L. D.," talking of Joseph Harris, the worthy Editor of the Genesee Farmer, as "beneath contempt"! and calling him "unscrupulous," "malicious," "untruthful," etc.!—We have no disposition to intermeddle with Mr. Mapes' personal quarrels, but when he publishes Mr. Harris as a man *without character among his editorial brethren*, because he has not spoken in the highest terms of Mr. Mapes' pet "super-phosphate,"—after he had taken some special pains to personally investigate the process of manufacture—we join with our cotemporaries, the *N. Y. Observer*, *Connecticut Homestead*, *Boston Cultivator*, *Country Gentleman*, etc., in assigning Mr. Harris a high character among his "editorial brethren"—a character which it will take the self-styled "Prof," "L.L.D." a long course of upright conduct to attain. And such, we think, will be the verdict of 39 out of the 40 Agricultural papers in the country—or at least of so many of the 39 as are acquainted with the past editorial career of both Mr. Harris and Mr. Mapes.

## Cutting Corn Stalks—Again.

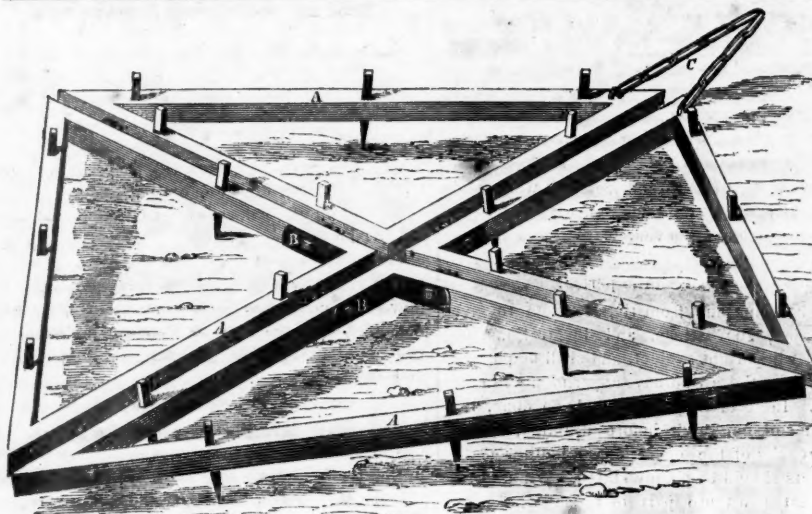
Some farmers still adhere to the old practice of topping their corn as soon as the ears are glazed. They suppose that the corn ripens better by exposure to the sun, and that the tops so cut, make better fodder. We advocate the cutting up the entire hill as soon as the kernels are well glazed. This method saves labor, yields as much and as good grain, gives the farmer more time to secure his crop, and the stalks make better fodder.

It is much easier to cut up the stalks when green, than when ripe and dry. A workman can grasp a whole hill with one hand and arm, and cut it up with the other at a single blow. But in topping, each stalk must be cut separately, and then in the final cutting up of the hills when dry, the labor is much greater.

At the North, frosts visit us soon after the kernels are glazed, if not before; and after the leaves have been once seared by frost, very little good can come to the ears from the ascending sap. Now, if the entire stalks are cut up just before frosts come, and bound together in large loose bundles, most of the leaves will remain unhurt by frost, and will continue to send down their accumulated food to the grain. So that probably the ears become fully as well developed as they would if the stalks had been allowed to stand a few days longer uncut. Besides, it should be remembered that all standing corn wastes by being broken down, and eaten by poultry, birds, etc.

Again: corn thus early cut up, can be housed





Russell's Flexible Harrow.

in better season and with less labor than if left standing in the field. It is less apt to become moldy, or to be soaked by water. If the farmer wishes to prepare his corn-field for a fall crop—say of wheat or rye—it can be easier and sooner cleaned by this method than by the other.

Then, as to the fodder. It is very slow work to top the stalks one by one, then to gather up and bind and carry them by hand to the wagon or cart at the outside of the cornfield. And if they are left on the ground until the crop is gathered, they are worth no more for fodder than the butts themselves. Whereas, if gathered as we recommend, and cured under cover or on poles in an airy loft, they will remain succulent and sweet all winter. It must be a very fastidious cow that will not eat up every inch of such stalks, if they are cut up with a straw-cutter and properly fed out. So, on a review of our reasons, we shall still adhere to the practice we have recommended.

#### How to Harvest Broom Corn.

In a former number of the *Agriculturist* we published an article on the Dwarf Broom Corn, from a correspondent who considered the difficulty of harvesting the stalks, a great objection to its culture. It is essential that the stalk be cut at or just above the highest joint, that being the only part used for manufacture, and the leaf so envelopes the stem that the joint can not be seen, which renders it difficult to cut at the right place. If cut below the joint, the leaves must afterwards be stripped off by hand, which is a tedious process. Mr. E. B. Good, who has cultivated this variety several years past, gives the following directions, which may be of service to those who received the premium seeds from this office the present season, and to others experimenting with the article.

The brush should be harvested as soon as the seed is hardened, and before severe frosts come on. In gathering, grasp the brush in one hand, and the top leaf in the other, and give a rapid jerk, separating the hands, right and left, which will break off the stalk at the first joint, leaving four to six inches attached to the brush. This makes it necessary for the manufacturers to tie the brooms very close to the brush, but, Mr. G. says, Dwarf Broom Corn harvested in this manner, is worked up by the trade in his neighborhood with equal facility to that with longer stalks.

In all respects except that noted above, the stalks should be treated exactly like the old fashioned tall-growing kind.

Every cultivator knows that in raising grain, very much depends upon reducing the seed bed to a fine tilth, and that thorough harrowing is essential, particularly in tenacious clayey soils. When land is level and free from stones or other obstructions, this is easily accomplished with an implement of the ordinary construction, but thousands of acres devoted to grain are uneven and rough with stumps, roots, and stones. Many forms of the harrow have been devised to be used on such fields, the object being to make it flexible, to adapt itself to the inequalities presented so as to work the whole surface.

The most recent we have seen, is that invented by Mr. John Russell, illustrated above. The figure represents a square harrow made by joining four smaller triangular ones, A, A, A, A. These are hinged together with iron at B, B, and near the outer corners as shown in the cut, and are allowed to play freely to conform to the varying surface.

The implement is drawn by the chain, C, attached to the two corners as seen in the figure, by which arrangement it takes a wedge form. A shield of iron, not shown in the cut, is placed over the opening behind the draft chain, which turns aside the weeds and stubble, and prevents their clogging around the hinge. It is simple, and looks as if well adapted for its object. We have not seen it in operation, and cannot state the price. The proprietor will probably make it known by advertisement in the appropriate columns.

#### Implement for Picking Fruit.

The old fashioned method of gathering fruit by sending the most active youths up into the tree to rattle them down by vigorous shaking, might answer, perhaps, when apples formed the bulk of the crop and they were mostly fit only to manufacture into cider. The bruises and gashes received were part of the process of making the pulp fit for the press. But an amateur fruit grower would no sooner permit such rudeness with his Bartlett's, Virgalien's or other choice fruits, than the good housewife would give her china



tea cups for play things to the children. It is no small labor to pick such fruit by hand, particularly the specimens hanging at the ends of the limbs, which are often the finest, and various implements have been devised to facilitate the work. The fruit ladder described in the following article is very convenient, but this must be often moved about from tree to tree and there is also the trouble of mounting the ladder to reach the higher branches. The device illustrated at the head of this article is one of the handiest contrivances we have seen. It consists of a small cloth bag, sowed to a hoop of stout iron wire, which is fastened to a pole long enough to reach the fruit. Upon the end of the pole, and immediately over the bag, is an iron prong, having an angle formed as shown in the cut. The edges that meet to form the angle may be made sharp, to cut the stem of the fruit. This, however, is hardly desirable, as there might be danger of wounding the shoots of the tree. The stem is easily broken by taking it between the prongs and giving it a gentle twist. The whole picking apparatus may be fastened to an iron socket, which will admit poles of different lengths, according to the size of the trees. The manner of using this instrument is obvious. The operator breaks or twists off three or four specimens, lowers and empties the bag and proceeds with the work. This apparatus can be made at a trifling cost by any blacksmith, and it will soon pay for itself, where there is choice fruit to gather. All fruit intended for keeping any length of time should be picked carefully, as every bruise will very soon induce decay.

#### Convenient Fruit Ladder.

The figure below shows the pattern of a ladder, which will be found more convenient for gathering fruit,

than the ordinary kind. It may be made of any desired length, say from 8 to 20 feet. The lower end is spread wide to give it a firm support. Several of the bottom rounds are connected by a center piece, else the weight upon a single long round might break it.

The upper round is a roller, which turns as the two upright braces are moved towards or from the bottom of the ladder. These upright supports are bolted loosely to the roller, which admits of their lower ends being brought near each other, or widely spread, to afford a broad base. When not in use, or when carried about, the props are tied to the side-pieces or rounds of the ladder, and the whole is so light, as to be easily moved. We have seen neat painted ones of different lengths on sale at the agricultural stores, at 25 cents per foot in length, but any person, handy with a saw and an auger, can easily make one for himself. The one here sketched, is 8 feet in height, 2½ feet wide at the bottom, and 1 foot at the top, with pine side pieces, 2½ inches wide by 1 inch thick. The uprights are of the same material, 1½ inches by 1 inch. The rounds are of oak, and the whole is very light. Larger ones should have hard wood sides and uprights.



### A Talk on Draining.

To the Editor of the American Agriculturist:

Much is said, considerable done, and doubtless more thought at the present day, about under-draining. But after all, every Yankee, before going into the "operation" asks himself, and perhaps half the neighborhood besides, "will it pay?" Where land is worth from one to two hundred dollars per acre, and hay sells at eighteen to twenty-five dollars per tun, and other crops in proportion, of course the question admits of but one answer.

(1) But in this region where good land can be had for \$25 to \$30 per acre, hay averaging \$5 to \$7 per tun, corn 2 to 3 shillings per bushel, (ears,) wheat \$1, etc., can a farmer afford to drain his land at the cost of \$1 or upwards per rod?

(2) We have on our farm a meadow of about 20 acres, (mostly peat, or muck,) which bears a very large burden of grass of very good quality; much of it timothy, clover, and red-top. The land is comparatively new, and somewhat uneven; most of it sufficiently hard to hold a team; much, perhaps most of it, could be plowed. Now the question is whether, under the circumstances, it would be a paying business to put in the drain tiles? They will cost from 20 to 50 cents per rod, according to size.

(3) If tiles are used, what size will be most advantageous? How deep should they be laid? and how far apart?

(4) I see Prof. Mapes recommends laying the tiles five feet below the surface. Is not this altogether too deep in a heavy clay soil?

(5) What would you think of making the drain of boards, sawed one inch in thickness and six inches in width, nailing the edges in the form of an eaves trough, and placing the open side down in this form, A? I have tried it on a small scale, where I wished to take off the surface water; placing them 6 or 8 inches under ground, and find they answer a good purpose; but whether it would pay where there is an outlay of 50 cents, more or less, per rod, for digging and filling up the ditch, is the question. I have thought if the boards were made of chestnut, red beech, or some timber that would last a long time under ground it might pay. I would like the opinion of some who have had experience in the business. If you can give any further information in the *American Agriculturist* on this subject it will be most thankfully received.

Geauga Co., O.

D. M. ALLEN.

In reply to the above questions we answer:

1. Where produce commands a higher price, draining will of course yield a greater per cent on the investment, as the first cost of laying the tiles, and the increased returns per acre, will be about equal in both cases. Still, a few figures will demonstrate that it will pay to drain lands needing it, (which most soils do,) even at the prices for produce named above. Put the cost of this improvement at \$20 per acre, (a fair figure,) and reckon the increased return at one tun of hay, or its equivalent, which is a safe calculation, even at the low estimate of \$7 per tun, there is a return of 35 per cent for the money expended; for, with the exception of harvesting the increased amount, the cost of cultivation is no greater than before. We think money bringing in even 20 per cent pays well.

2. We can not answer as to this particular field. If it be a good natural meadow, and yields well year by year, it may be as well to leave it for this purpose, and not bring it under the plow at present. Should it fail, then drain, plow, and reclaim it.

3. The article on page 198, this volume, (July No.) contains the information asked for.

4. You will see many ideas emanating from that source, which no other man entertains—in this instance he has "progressed" too far down for all practical purposes. From 3 to 4 feet is sufficient.

5. Such drains are of service for a while, and certainly far better than none, but where tiles can be procured, they are every way preferable. A job of draining with tiles, once well done, is finished for an almost indefinite period.

We shall continue from time to time to give information, suggestions, and illustrations, on this most important subject, and shall be pleased to hear from those who have experimented in the matter. In describing what has been done, the kind of soil, condition before draining, cost of work, results of the operation, and other pertinent facts should be plainly stated. We are confident that if a tenth part of those who have made a trial in draining would give their experience, the testimony would set thousands of farmers to work digging to find out the capacity of the under side of their farms.

### Blinks from a Lantern.....XXI.

BY DIOGENES REDIVIVUS.

HOW TO GET CHEAP HAY.



With hay selling from the field at fifteen to twenty dollars a tun through a large part of New-England, the question of cheap hay becomes a matter of absorbing interest. All through the North where cattle are kept up through the Winter, the hay crop is of the first importance. Indeed, taking the whole country into the account, the single item of grass is far more valuable than any other product of our soil. It far outstrips corn, cotton, and wheat, which generally attract more attention because they are more generally sold, affecting the commercial exchanges of the country. But the lowly grasses that our cattle graze during the Summer, and which, dried, form their principal food in Winter, are more important to the prosperity of the country than any other crop. This crop in the form of dried grass was estimated at about 14,000,000 of tons at the last census, and the pasturage is quite as abundant and valuable. The increased production in the last ten years has been very great, both from the new lands brought under cultivation, and from the better cultivation of the old. Reckoning hay at ten dollars a tun, and putting the pasturage at equal value with hay, the whole crop of the country can not be worth less than 350 millions of dollars. If by any cheap process we could add ten per cent to the production of grass, it would be an addition of thirty five millions to the wealth of the country.

With all this enormous aggregate, the processes of growing grass are very defective in all parts of the country. Not one farmer in ten resorts to the most economical methods. My opportunities for observation in my recent lantern adventures, abundantly confirm me in this belief. The difference between the crops of good and poor farmers, or between a wise and bad husbandry is more than three hundred per cent.

The dearest process of getting hay is that of a neighbor of my friend Higgins. He lives on a fifty acre farm, and has been there for a score of years or more. Roberts belongs to the old school of farmers, and nothing is orthodox with him that is not done in the good old way. Grass he holds to be a "natural growth" of the soil, and where

a thing comes naturally, the more you do for it, the worse it is. He has some twenty acres in mowing, and the gross product of the whole does not exceed fifteen tons. The yield per acre is always from a half tun to one tun per acre. This thin half nourished grass, he honestly believes is much more nutritious than that from a well cultivated meadow, though he can see the difference between half starved and well fattened beef, and never fails to prefer the latter. He often declares that he does not want land that will yield four tons of hay to the acre. He does not see how cattle can eat such stuff, and doubts if it does them any good. Higgins' cattle look sleek to be sure, but he feeds with meal, he guesses, and it must be the meal that makes the flesh. Roberts believes in selling hay, and nothing is more common than to see him start off to the city with a load, though he have to sell a cow during the Winter for want of fodder to keep her through. His oxen are never able to draw a full load, for lack of muscle on their ribs. His rotation is corn two years with ten loads of well sun dried and bleached barn yard manure to the acre, oats one year, without any manure, and then grass several years, until it will not produce enough to pay for mowing. The first year after stocking down, he cuts a tun to the acre, and if the season is uncommonly wet, he gets a tun and a quarter. His yield of corn is about twenty five bushels to the acre, which satisfies his ambition as well as ninety does the man who takes the premium at the County fair. In good grass years he gets a profit of four or five dollars an acre.

Right across the way from Roberts, lives young Dan Baker, who has been on his 80 acre farm only five years, and has already got the most of it into good heart. He has about the same quantity of land in meadow that Roberts has, but he gets sixty tons instead of fifteen, averaging three tons to the acre. Roberts, of course, says that "he dont want any such coarse stuff for his cattle to eat" but some of your readers will have a curiosity to know how he does it. His rotation is two years in corn, one in Spring wheat, with which he stocks down, then in grass four or five years until he gets ready to plow again. He does not believe in any thing less than three tons of hay to the acre, and has an idea that land may be kept perpetually in grass without any falling off. When he takes up a piece of sward he puts on fifty loads of good stable manure or compost to the acre, and more if he has it. He usually gets from seventy to eighty bushels of corn to the acre. To do this, he plows twelve inches deep, while Roberts plows only five. He stocks his ground with a mixture of grasses, herds, clover, red top, etc., and finds that, with deep plowing, they get a much stronger hold, and last longer. He has great faith in top dressing, and makes compost every year for the purpose of spreading upon mowing land. On level land he spreads this in the Fall and Winter. On hill sides he spreads it in May, after the grass is well started, so that the grass may hold the manure, and prevent it from washing. He makes great use of muck, of which he has a large deposit within a hundred rods of his barn. Indeed he built his barn with reference to the muck mine, so that he could get it at small cost for carting. He claims that he can make a cord of good compost for fifty cents, and spread it upon the mowing for fifty more, and that five cords spread upon an acre, will show its effects for three years or more, and will make a difference in the yield of three tons of hay. In other words he gets three tons of hay for five dollars, taking it as it stands



in the field. Dan Baker takes the papers and is a close calculator, and I think he is about right.

By this thorough mode of cultivation and high manuring, he gets his hay very cheap. The corn and wheat crops not only pay for the manure and labor but leave a handsome profit, so that the land has no charges against it when it comes into mowing. He gets three tons of hay worth, this year, thirty six dollars standing. Besides this he gets eight weeks' pasturage for a cow, worth four dollars more, or forty dollars income from an acre of land above all expenses. Dan Baker never sells hay, says he would just as soon sell his Morgan mare, or his South Down buck. If there is any profit in the use of hay, and he guesses there must be, he wants to make it. So he buys stock enough every year to eat up all the hay and grain he raises upon the farm. With these he makes manure, more manure, most manure, every year. This is the Alpha and Omega of cheap hay, and of all profitable farming. Feed the soil and the blades of grass will spring up, not only two to one, but sixty and a hundred fold. Light increases and I am beginning to see in dim outline a farmer.

#### Tim Bunker on Irrigation and Invisible Toll Gates.

"What next?" exclaimed my neighbor Tucker one morning, as he poked his head over the wall of the lot where the horse pond used to be, and which is now known in all Hookertown, as the Horse Pond lot.

"What are you turnin up that furrow for?" asked Jones with his mouth agape, as if he saw an elephant.

"You ain't a gwine to plow this field, be you Squire?" asked Seth Twigs, as he blew an extra long whiff out of his mouth, and leaned his elbow on the wall.

"Plow it, you fool!" exclaimed Jake Frink, "that are field cut four tun of hay to the acre this season, and you don't think Tim Bunker is gwine to take up such a sod as that do you?"

"Tarnally tinkering with the land," added uncle Jotham Sparrowgrass, as he looked in astonishment at a new adventure upon a piece of land, that he thought was finished.

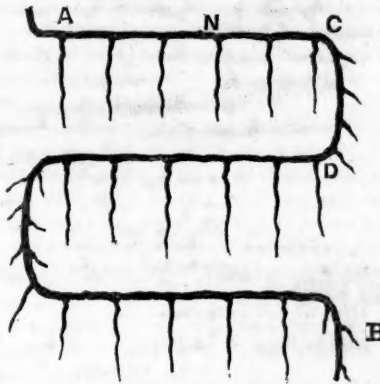
"You don't expect to get any more grass off of this lot than you cut this year do you?" inquired Mr. Spooner as he came to join that portion of his flock who keep a sharp look out on all my movements.

The Horse Pond lot is admitted to be a great success, and Jake Frink grits his teeth every time he goes by it, and wonders he was such a fool as to sell it, though it would have laid there unimproved to this day, if he had kept it. A part of it I have in sugar beets and mangolds, and though I have seen some beets in my day, I must say these are the beaters of all that tribe of plants. You see I fell in with a lot of old lime plaster from a house they took down in the village this spring, and carted on perhaps a dozen loads. The lime was just what the soil needed to decompose its excess of vegetable matter, and judging from the growth of these beets, they have had about as much plant-food as they could take care of. They have three months to grow yet, and they already cover the ground though they are planted two feet apart. The crop will not be short of two thousand bushels to the acre.

But the larger part of the lot has been in grass, and according to the estimate of my neighbors, the yield was four tons to the acre, though I guess they overstate the matter a little. It was tall herds-grass and lodged in spots, but it takes a

great deal of hay to make four tons to the acre. But good as it was, I am not quite satisfied with it. You know it is not in human nature to let well enough alone, or to think that we are on top of the ladder, while there is a single round above us.

I was just laying out the ground for watering it, when my neighbors gave me a call yesterday. You see the land slopes away from the road, and water can be run all over it by making shallow channels upon the surface with a plow, and mending them a little with the hoe and spade. I have



a first rate chance to turn water on, and as the ground is now all drained, I claim that the more water on top, the better, as long as it can get out at the bottom.

Almost all water has more or less sediment in it, even when it seems to be clear, and the land is just like a strainer to take all this floating matter out. There is a good deal of nourishment for plants in this sediment. The soup is rather thin I admit, but I suppose some things may suit plants, that would be rather spare diet for man or beast. When I get my channels properly constructed, I can irrigate this lot from two sources, the wash of the road, and a brook that I can turn from its course at a cost of not over twenty dollars. You see the lot lies right in a hollow between my house and Jake Frink's, and can now be made to catch all the water from the two hills, a distance of at least a mile, which used to go into the pond before it was drained. The wash of a road is good any where, I suppose partly from the manure that drops from passing animals, and partly from the soil which is ground up very fine by the continual tramping of iron shod feet, and the crushing of wheels. I have noticed that wherever any of this dirt is run on to a mowing field, even where there is hardly a trace of manure, it makes the grass much stouter, and you will see the effects of it for several rods from the fence. I have sometimes thought it would pay to have a machine for grinding up soil very fine for top dressing. At any rate, there can be no doubt that all the wash of roads ought to be saved wherever it can be turned on to grass land.

In the roads that lead into villages and cities this wash is particularly valuable, because there is more travel to grind up the soil, and more manure dropped. Hookertown is a place of considerable trade, and I suppose on an average there are fifty carriages and teams that go by this lot every day. I calculate to make them all pay toll, and contribute to the growth of my grass without knowing it. Suppose I get from each passing team only five mills, this amounts to twenty five cents a day, or over ninety dollars a year. I think the wash that comes into this hollow, when spread over five acres, will make more than ninety dollars difference in the yield of the hay. Every farmer who owns a lot similarly lo-

cated, can erect an invisible toll gate, and collect the tolls without robbing his neighbors.

The water from the brook I can turn on, in dry times in the Fall or Summer, after the hay is taken off. This brook comes from a swamp covered with timber and brush, principally maple and huckleberry and other hard woods, and every Fall brings down a great quantity of leaves and vegetable matter. It also flows through meadows and cultivated fields, and after heavy rains carries a good deal of mud and sediment. This I think can not fail to benefit vegetation, though it is not so rich as the road wash.

The arrangement of the channels is a matter of considerable importance. It is found from experiment that the grass gets all the more valuable parts of the water and sediment in running six or eight rods, so that the main channels should be about that distance apart over the whole field. If the lot lies like mine in the form of a parallelogram, sloping to the south, the channels may be arranged as in the cut. The road runs parallel with the north side of the lot. The water comes in through the wall at A, and follows the main channel until it discharges at B. This channel is made about eighteen inches broad at the top, and about a foot deep. It is kept nearly level where it runs east and west, so that small notches in the brim will pass the water off in nearly equal streams. These small streams are partly absorbed by the soil, in running eight rods to the channel below, where they are caught and mingled with the muddy water again, and again passed off through small cuts in the brim, and so on until the whole field is irrigated. The fall is about two feet in the eight rods, but the channels could be easily worked with much more fall, as the water would only run a little faster from C to D and in the parallel courses.

"Irritation of the land!" exclaimed Kier Frink as he looked out of his coal cart where he has stopped to hear what was said by the company. "What does he mean by that? I never heern of that even in the Whiteoaks, where they irritate almost every thing from cats up to old hosses."

"He is gwine to turn a brook on here and git six tun of hay to the acre," answered Tucker.

"If he can," added Jones.

"And blame him, he'll du it neow ye see, for he's a master hand to carry his pint," said Seth Twigs.

"Neow du tell," responded Kier, hitting his horse a smart lick, "Tim Bunker waterin a swamp! git up old hoss, this aint a safe place for yew."

And the old coal cart vanished up the hill as if the driver had seen a ghost. But I am not quite crazy yet, though some of my neighbors think I am leaning that way. I shall keep you posted on "the irritation of the soil."

Yours to command,

Hookertown, Ct., Aug. 1860.] TIMOTHY BUNKER, Esq.

PROGRESSIVE BEES.—On the 23d of July one of my hives sent out its first swarm, which was properly cared for, and appears to be doing well, and nothing occurred to call particular attention to the old hive until the evening of the 26th, when to my surprise the shrill notes of the young aspirants were very clearly and distinctly heard from three different parts of the hive, each having a peculiarity of sound; and making the impression on my own mind that there were three queens within. Well, sure enough on the 27th (only 4 days after the 1st) another swarm issued from the same hive. It will be gratifying to me and perhaps useful to others if some one of your correspondents of long experience will give us information on this state of things. B.

Essex Co., N. J.

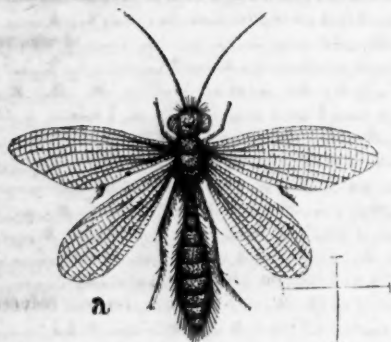


Fig. 1—Golden Eyed Fly of the Apple Blight. (*Chrysopa Eriosoma*), magnified. The cross lines on the right show the natural size.

### Microscopic Views of the Insect World. V.

BY MRS. CHARLOTTE TAYLOR.

#### *Chrysopa Eriosoma.*

##### THE GOLDEN EYED FLY OF THE APPLE BLIGHT.

Another friend is here introduced to your acquaintance, one whose services render her well worthy of protection and admiration. She shows us beauty on the wing when she passes us in garden or field. The splendid colors of her body scintillate like rays thrown on us from a passing rainbow. Her eyes are composed of bars of gold through which we seem to have a peep at the setting sun with all the purple shades of evening intermingling, and her airy, finely meshed wings, violet, green, or yellow, just as the light falls on them, make a Summer's noon more resplendent by their presence. Nothing can be more varied in beauty and splendor than many insects of this family.

The *Chrysopa* is a subgenus of the Hemerobii—the *Chrysopa Perla* of Linnaeus being the type in Europe. It may be distinguished from the Hemerobius by the greater brilliancy of color in the wings and body, the comparative freeness of the body from hair, the more brilliant lights when in motion, the irregularity of the veins and nervures on the wings, and lastly by the scientific distinction—the joints of the antennæ, the first having them moniliform (globular) the latter filiform, the joints cylindrical. There are several other subgenera belonging to this family, distinguished by the joints and the position of the antennæ to which I shall return at some future day. Forty two varieties have been named by Dr. Fitch, all belonging, I believe, to the State of New York alone. Those yet to be found in the Eastern, Middle, and Southern States, will present an inexhaustible classification to the future entomologist. No season hitherto has passed with me but several new varieties have been seen, showing to what instruments of Divine bounty we are indebted for crops, fruits, and flowers. The inestimable value of these little creatures can never be comprehended by us, until they are withdrawn or diminished; then, be assured, scarcity, if not positive famine, will be our portion.

The specimen here shown, Fig. 1, is not so brilliant as some of her associates, still it is very bright and showy. In one light it appears a pale green, turned round it becomes purple, again it is almost a red. I felt very desirous to find out by what means these prismatic colors were produced. After many fruitless experiments, I took a hot needle, and singed off the fine hairs on the body, which all this family have; it then presented between the segments a bright purple, the rings of the segments were bronzed yellowish green, and the hairs were lucid and yellowish. Thus as you

turned the insect, the light falling on different portions threw the colors of the body up, and gave their shading to the hair. The tenth segment, (decaton) and the last, (telum) had their rings reddish which added this hue to make up the various colors reflected from this small surface. The wings obtain their shades from the colors of the nervures and veins—the thorax is of a brilliant emerald green, with a number of small yellow hairs over it. The brilliancy of the eyes is caused from the cornea being intersected with bars of various colored pigments, which, varying in density, form between the cornea and the crystalline cylinders an iris or light, rather I may say a uvea or paint like that which we see in our own eyes, allowing the light to pass through according to the position in which it is placed. It is desirable you should remember this dissection, as the process is the same in the shading of all the orders (except the Lepidoptera) only varying in quantity and intensity when alive, but after death it is difficult to get any radiations at all, except where the colors are fixed, as on the wings of beetles, etc.

She deposits her eggs in the same manner as the Hemerobius, Fig. 2. Sometimes there will be clustered three or four together, and attached

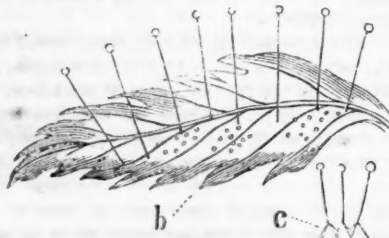


Fig. 2—b, Eggs placed off a leaf. c, Eggs in a cluster.

with threads of gluten; this is early or very late in the season, when gales are frequent, and you may suppose them attached thus for security.

This *Chrysopa* and some others, from their habits, must constitute a subgenus of themselves when more of them are classed. I have myself made them one containing several varieties. They have many differences, the principal is having larvæ which must feed under cover; the others are not so constituted. These are found solely among the cottony Aphides or "Blight." As they devour them, they toss their dead skins over on to their backs, in a few moments a larva, clear before, will resemble nothing but a lump of cottony fibers, Fig. 3. If you relieve them of this covering with a straw, they will hasten away from the air until it is renewed. They are covered with short, strong hairs on which these carcasses get pinned until they are eight or ten deep. They feed longer than other larvæ of this family, and you would be amused to watch them in September on the apple trees, wallowing about under

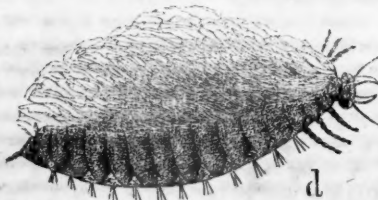


Fig. 3—The larva with its covering.

such a load of cottony fiber, and the carcasses of their victims. At the last segment or (telum) there is always hanging a long thread of silk, Fig. 4, which answers for a fastening when the winds are high and they are likely to be blown away. Besides, this segment has the power of suction, with which, in storms, it holds on to the branches

with more strength than it could do with its legs and mandibles together. On fine days, when the winds are high, you may see them by hundreds, like pigmy witches hanging in this manner from

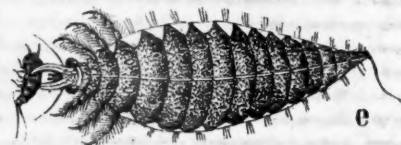


Fig. 4—The naked larva with its thread.

the branches for the purpose of having the wind to relieve them of some of their covering which has become too weighty, as seen at f, Fig. 5.

It spins its cocoon in the same manner as the Hemerobius, except that the ends of it, g, Fig. 5, and the pupa case, h, Fig. 5, are divided or cut off, which, when the fly has emerged, appear like lids attached with hinges of silk, which really is the case: both are coarse on the outside but much better finished within. The pupa is likewise necromorphous, of a faded green hue, all its parts in different sheaths, its antennæ and those resplendent wings being curled and doubled up in a marvelously small space. The coming forth of this large fly from so small a space is a phenomenon of Nature well worthy of study. The difficulty of emerging from the wrapping skin as it becomes an Imago, is more serious with them than with the Hemerobii. They are not so strong either in the larva or perfect state, but are quite as useful. Both of these flies have two generations during the season, remaining in the larva state from two to three weeks. They select more secure places for their cocoons where they remain over the Winter, and you may find many of these coarsely fabricated white hybernacula placed between the fissures of the bark on fruit trees. From that which I have here culled from Nature's vast store house for your amusement and instruction, I trust you will henceforth grant them protection and respect, and not pick them from their snug quarters with a sharp instrument,

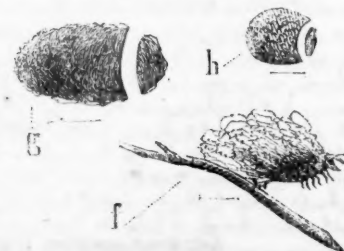


Fig. 5—g, The cocoon. h, The pupa case. f, The larva sustained on a branch by the suction of the telum

as I have frequently seen done. Be assured you are giving vast scope and comfort to your enemies by such cruelty—destroying with your own hands the blessings offered to counteract future evil; for these likewise belong

"To the useful, and the beautiful."

ABSCENDING BEES.—Thomas Armstrong, Wyandot Co., O., inquires how he may prevent bees leaving after having been hived. He states that he has lost several stocks in this way. By watching the hives closely a short time, it can be pretty well determined whether they intend to remain. In that case they will at once commence building comb, and a peculiar rubbing sound can be heard upon applying the ear to the side of the hive. If, however, they hang about idle, as if discontented with their new home, they are probably meditating removal. Then close the entrances so that only worker bees can pass, to con-



fine the queen. If this can not be done readily, carry the hive to a dark room and keep them confined two or three days. Give them water and honey with which to commence comb building. It is also recommended to introduce into the hive a piece of comb with unsealed worker brood, which they will seldom leave. They will, however, act very capriciously at times, and leave almost without notice, and from no assignable cause, although every precaution may have been taken to make them comfortable and contented.

### To Keep Flies from Wounds.

To the Editor of the American Agriculturist:

I noticed in your notes on farm operations for June, you recommend where lambs have been castrated or hurt, and maggots have bred in the wound, to put on tar or turpentine. It is far better than either, to take the leaves of the common elder, and bruise them, fry them in lard, and apply the mixture. Let it melt and run into the wound, and every maggot will be off as soon as he can find the way out. It would do you good to see them coming out and tumbling off. This will save life, and heal the wound when neither of the others will—and if put on when the wound is fresh, no fly will lay an egg about it.

Hancock Co., Ill.

JAMES JENKINS.

For the American Agriculturist.

### Pneumonia of Horses—Analogy with the Cattle Disease.

During the Summer and first Fall months of 1832 there was prevalent in this State, a disease, which, from reference to my notes made at the time, I consider in character very like the one now attacking cattle. At that time, many noble animals (horses and mules) died almost without a warning; others lingered with alarming symptoms several days. So great was the general loss, that in consideration for my fellows as well as myself, I concluded to investigate the matter, and resorted to post mortem examinations, as the most certain means of success, in connection with the state of the case previous to death, hoping it would result in finding the true cause, and that a prevention or remedy might be instituted. I accordingly procured the services of several persons, and dissected ten animals, the result of which I will now give as nearly as possible from the minutes made at the time.

My first move was to go immediately to the chest, and examine the lungs, heart and large vessels: to see their exact condition, I dissected immediately after death. The lungs presented a soft flabby appearance, covered with patches of dark spots. Sometimes only one would be involved, at other times both, showing in this latter case, particularly, a high grade of inflammatory action. The left side of the heart was next in order. It was found filled with a mass of congealed serum separated almost entirely from the globules or corpuscles, of a very glutinous nature, and formed into cords, and interwoven into and around the muscles so completely as, in some degree, to prevent their contraction.

The Aorta or main artery, commencing at its attachment with the heart, was next opened as far as possible into its ramifications, and I there found this same ropy, sticky condition of the serum separated from the corpuscles as in the lungs, to such an extent as to block up the passages of the arteries so much, as to defy their muscular action to drive it through them. This serum was so tenacious that I could pull it out of the large arteries in ropes two feet in length, and so tough as not to break in extracting. The

lungs, to a certain extent, presented the same appearance, but on account of their reticulated surface it was not so apparent. The liver and spleen were also found in a highly congested state, and showed the same phenomena as the heart and arteries. The bowels were much constipated, and food badly digested. The brain was also laboring under congestion.

From the examination of the different principal organs, I was fully satisfied that in all the cases the lungs were the seat of the affection, and comparing with different authors, I believe it to be equivalent to the Pneumonia of man, the substance of the lung being the principal part affected, and not the pleura. The latter seemed quite free of any taint, save in its connection with the adjacent parts.

You may ask if the Blood was in this condition while the animal was living, or did it result after death? In reply to this query, I can answer, I think, satisfactorily. In some cases I bled before death ensued, and upon cooling, found this ropy, sizzly matter to be divested entirely of the corpuscles. Once I stood by a horse and saw him fall dead, and immediately I plunged my knife into him, and then, before any change either mechanical or chemical could take place, found the same thickening of the serum. To my mind this was most conclusive.

The symptoms as noted at the time, were, First: The horse will appear to be dull and sluggish, refuse to eat, and take no notice of his fellow, or anything around. His head and ears will begin to droop; mouth and nostrils very hot and dry; after a time the tongue becomes parched and dry. He next begins to stagger and reel about, the eyes sink deeply into the sockets, become of a glassy hue, and would seem to indicate that blindness was about to take place. (Hence it was commonly known as the Blind Staggers.) His mind is so confused that he will run against anything in the way, inclining his head to the side mostly affected, which is generally the left. Not much inclination to lie down, every effort being to keep up, though when seen lying, he was mostly on the affected side. Many times the horse would travel or work well all day, and eat his regular meal, and the next morning show symptoms of the affection. Upon pressing the hand hard over the region of the heart, I found there was great labor, as if the heart were raising a great weight. Upon applying the ear to the side, found but little crepitation. Pulse much depressed; short breathing; sometimes would fall instantly dead. At other times when down would stretch out his head, neck, and legs, and thus remain, without any appearance of life. The limbs and surface are generally cold. He will often remain in this condition for three or four days. The hair often comes off in patches more or less, owing to putrefaction having taken place before death.

As to the origin of this disease I am not prepared to say, but will state what I believe: that it may be brought on by the same causes and run its course the same as the Pneumonia in man, and prevail as an epidemic, but is not really contagious or infectious as they would now have us believe in the cattle disease, but it would doubtless be engendered in others, not so much on account of any particular virus or noxious principle received from the diseased animal, as from the privation of those necessities for building up a healthy organization and sustaining it under all ordinary circumstances, which is the predisposing cause of most diseases.

The treatment which I resorted to in the Pneumonia of horses, was first to bleed freely,

and let the blood stand until it coagulated, and if the serum presented that ropy, sizzly appearance, I bled again until the proper consistency was restored and the fever reduced. Drenched with salts to remove all accumulations in the intestines, and then I gave him Nitrate of Potassa, 1 oz., Antimony  $\frac{1}{2}$  oz., every six hours, continuously administered as a drench, (as by this time the animal can not eat) until the symptoms abated. Covered all over with a blanket and put under him a large pot filled with hot water, kept up steam to bring on a sweat, and continued it as long as I thought necessary, according to the severity of the case. When the fever was reduced, I shaved off the hair of one or both sides, which ever appeared most affected, over the region of the lungs, and applied spirits turpentine to irritate the skin, rubbed on the blistering ointment (strong) as often as found needful. If the ointment doesn't blister, make use of the hot iron, and keep it sore for two or three days with turpentine. As a general rule no further medical treatment is necessary. Some care should be exercised in convalescence, not to bring up the sick animal too fast. Give plenty of fresh air, and keep in as unchangeable an atmosphere as possible. As to the preventive treatment whether there are any symptoms or not, I would take about two quarts of blood, and notice the condition of the serum; and if it present much the same appearance as diseased cases, the animal may be considered in danger; then commence at once to give him Nitrate of Potassa, 1 oz., Antimony,  $\frac{1}{2}$  oz., Flower of Sulphur,  $\frac{1}{2}$  oz., well ground together. Give this quantity three times a day in bran or ground oats, and continue this for two or three weeks, keeping the animal warm and dry. At the end of this time, all inflammatory tendency will be reduced, and when faithfully carried out, I found it successful in every way.

Kent Co., Del.

WM. M. BONWILL, M. D.

For the American Agriculturist.

### Hints on Fattening Pork.

It is usual with many farmers to put this off until cold weather sets in. The pigs run in the woods, the road, or the pasture, picking up a scanty living, and come to the pens lean and hungry, when they ought to be fattened. In our practice we keep pigs in the sty the year round. We find them quite too valuable co-laborers in the manufacture of manure to allow them to waste "their sweetness upon the desert air." A pig is worth ten dollars a year for this purpose alone, if you will give him the material to work with and plenty of food. But possibly it may pay for a little time in the Summer, to keep the sow and pigs in a good clover pasture where grass is more plenty than corn upon the farm. If this be done, all of them intended for the butcher by Christmas, should be shut up immediately, and be fed with all they can eat. A squealing pig is worse for the owner's pocket than for his ears. It is much easier to make pork in September and October than in December and January. No extra amount of food is wasted in keeping up the animal heat. It all goes to fat and muscle. Variety of food is a matter of much importance in fattening swine. At this season a greater variety is easily commanded. The garden, if it is a good one, yields a great many refuse articles, squashes, beets, carrots, apples, melons, tomatoes, and corn, which will find a good market in the sty. One of the best articles of food for them is sweet corn, cut up by the roots and fed whole. They are very fond of it, and it makes them thrive very fast. A half acre near the sty

may be profitably cultivated every year expressly for this purpose. If this be not on hand, corn from the field may be fed in the same way once a day. But swine need something more than green stuff however nutritious, to make them fatten rapidly.

The cooking of food is much more economical than is generally supposed, especially upon the farm, where fuel costs little but the labor of preparing it. We think about one third of the value of all the grains usually fed to swine, is saved by cooking. A boiler or box for steaming is indispensable in every well arranged swillhouse. In this the meal may be cooked and thoroughly mixed with the roots and other vegetables. The meal absorbs large quantities of water, is more highly relished by the pigs, and is more perfectly digested. Numerous experiments fully prove the economy of cooking the food under ordinary circumstances. Some claim that they can make pork for less than three cents a pound in this way. A dairy farmer of this State made one year 4,227 pounds of pork. The feed with which he did it, was 4,127 pounds of corn and oat meal at \$1.50 a hundred, 470 pounds of shorts at 75 cents, 147 bushels of potatoes at 16 cents, all of which were cooked, and half an acre of green peas worth say \$15; making the total cost of feed \$103.95, or not quite two and a half cents per pound for the pork. The value of the whey and sour milk was not reckoned. This and the labor of feeding, with the fuel for cooking, are very properly balanced against the manure they made. There can be no doubt that cooking the food pays well.

A dry, warm place for sleeping is another important item in keeping swine thrifty. They should have a good sty with roof and board floor, and plenty of straw so that they can keep themselves clean. With these conditions pork can be made very fast, and the sty will be found to pay as well as any part of the farm arrangements.

CONNECTICUT.

#### Sheep Husbandry.....IV.

##### WINTER TREATMENT.

The favorite method with the careless farmer is to feed them at the stack with his young cattle and colts, or let them take their chance in the open yard with the cows and oxen. Here they are hooked about, scared from their food, and not unfrequently maimed or killed. It is thought that sheep can live on the refuse of the yard. But the man who means to make sheep profitable, must have a place for them and attend to their feeding. The Winter is the most critical time with them, and many a flock is more than decimated by neglect. The crows have rich pickings of mutton, and the boys hard pickings of pulled wool, along in the warm days of the opening Spring.

After the snow begins to fly, and the Winter has fairly set in, we are decidedly in favor of keeping sheep in the yards provided for them. It is true there will be open spells when they might pick something from the pastures, but the feeding at this season is bad for the roots of the grasses, and not favorable to the thrift of the flock.

The selection of a location for the sheep yards and sheds, is a matter of very great importance. Whether you feed them for stock or for the butcher, you must have a dry location—if not naturally so, made such by drainage. If the ground is wet, your flock will soon be in trouble. Much of the prejudice against confining sheep to narrow quarters arises from the neglect of this precaution. The sheep have the foot ail, and contract diseases in wet yards and sheds, and the evil is charged

to close confinement. The fact is, the sheep is naturally gregarious, and if favored with a dry bed and plenty of fresh air, will thrive in small enclosures quite as well as other domestic animals.

One of our most successful farmers, who sometimes feeds five hundred at a time for the market, confines them to sheds either with a small yard in front, or no yard at all. Sometimes seventy five are shut up in a shed twenty one by thirty six feet, with a yard about eight feet wide on the southern front. But in this case, the shed is well furnished with absorbents for the manure, and is kept littered with straw, and at the back side, a board a foot wide swings upon hinges, so as to keep up a thorough ventilation. With this care the flock thrives and lays on flesh as kindly as if in larger quarters; without it they would do poorly with any amount of room. Sheep must be kept clean and free of foul air. They love the dry atmosphere and the free breezes of the hill tops.

If yards are allowed, some provision should be made for confining them to the sheds in stormy weather. It takes a great deal of food to dry a thoroughly soaked fleece in winter, to say nothing of its bearing upon the health of the animal. It is much better that this food should go to form muscle and fat. The sheds in all cases where it is practicable, should open toward the South, so that the Winter sun may come in upon them as much as possible. The sun has a wonderful influence upon the animal economy. In small sheds and yards, a less amount of straw is needed for litter, and the manure is more easily managed—an important consideration.

The sheds must be furnished with racks and troughs, so that they can be fed with hay, grain, or roots, at the option of the owner. There should be room enough for all the sheep to feed at once.

A rack or feeding box of convenient size for use and for moving, may be made as follows: For the posts, take pieces of any good hard wood, 2 by 2½ inches, six in number; one for each corner, and for the middle of the sides. For siding and ends, take boards twelve feet in length, twelve inches wide for the bottom, and eight inches for the top. This will give you an opening of ten inches for the heads of the sheep, if the posts are thirty inches in length. But they can readily be made a little longer or shorter, according to the size of the sheep you wish to keep. For the bottom, take three narrow strips of board, one at each end, and one in the middle. Upon these, fasten a board twelve inches wide, running lengthwise through the middle. This is for the bottom of the trough. Upon each side of this, put in a board upon a bevel, extending to the sides of the box. This will make the bottom dishing at the sides, and tight, for holding grain, meal, roots, or any thing else you wish to give them. This box may be made with wooden pins, or nails, but the best fastening is stout screws, about two and a half inches in length. In the moving about, the boxes are subjected to a considerable strain, and screws will be found the cheapest in the end. Such a box as this will accommodate about twenty large sheep. It is easily turned over and cleaned without sweeping, and readily put away for the Summer. This kind of feeding apparatus has been in use in this country for at least forty years, and is, on the whole, the handiest contrivance we have ever met with. It will pay any man who keeps sheep, to have enough of these made to accommodate his whole flock. In the common slovenly way of feeding upon the ground, more fodder will be wasted than

would pay for the boxes. The sheep is a cleanly animal, and its tastes should be consulted.

*Selection of Sheep for fattening.*—Few farmers raise the sheep they feed for the market. The best districts for raising sheep are not always the best for preparing them for the butcher. The mountainous regions that yield abundance of grass, are not so good generally for grain and roots. The farmers who live near good markets, or whose farms are well adapted to grain and roots, can fatten sheep to better advantage than those who live in a more broken country. But much of the success of feeding depends upon skillful buying. The refuse, cheap sheep of light weight, are not the ones to be fed with most profit. As a rule, it takes no more food to finish off for the butcher a sheep weighing a hundred and fifty pounds, than one of a hundred pounds or less. They will gain much faster, and give you more money for the food consumed. The same constitutional habit that has made them thrifty in the light hill pastures, will make them gain faster in the feeding yards. Therefore purchase the larger sheep, even if you have to give more for them in proportion to their size than for small ones.

*Feeding.*—The practice of skillful farmers differs considerably here, both as to time and the articles of food consumed. Some feed thrice daily, others four times; viz., early in the morning, at 11, at 1, and at evening. Whatever times are selected, the feeder should be on the spot at the appointed hour. Regularity in feeding is a prime element of success in the fattening of all domestic animals.

In the change of the flock from the pastures to the yards, care should be taken not to over feed them with grain at first. The quantity of meal, grain, or oil cake, may be gradually increased from a handful up to a pound for each sheep daily, beyond which quantity it is not ordinarily profitable or safe to go. Too high feeding with meal or oily food, sometimes leads to sudden death, and the butcher loses his mutton, and you lose your profits.

The sheep, as well as any other domestic animal, loves a variety of food, and will do much better upon three sorts daily, than upon any one. Whatever bill of fare be made out for them, clean sweet hay should always be the staff of life. They are very fond of turnips, and these may form a part of the daily food, both in the Fall, before they come to the yards, and while they are in confinement. Carrots, beets, and other roots are also highly relished. Some one of these will profitably form one of the daily meals. For fattening, they also need some kind of oily food, as oil cake, cotton seed cake, or Indian meal, or corn. They relish almost all the grains, and these may be fed to advantage where the farmer raises them, or can buy cheaply. The straw of the grains, oats, wheat, and rye, if run through a cutter and mixed with a little oats, or meal, can be profitably fed. Beans are an excellent feed, and are more greedily eaten by sheep, than by other kinds of stock. They need neither boiling nor grinding. Indeed, there seems to be no profit in grinding any of the grains for this animal, so perfect is its mastication.

*Sheep Manure.*—One great advantage of putting sheep under sheds in the Winter, is the large quantity of manure you are able to make by the process. You can use all the muck that is desirable, without any danger of miring the sheep, as is the case in large open yards. The whole area of the shed and small yard attached, may be covered to the depth of a foot or more with



muck, and not an ounce of the manure, liquid or solid, need be lost. This muck should be kept covered with straw, or refuse hay of some kind; so that the sheep may be dry at all times. In the books this manure stands high among fertilizers, and judging from what we have seen of its effect upon crops, it is not at all over-estimated. It is quite equal to the manure of the sty. While in the yard and trodden by the feet of the sheep, it is in no danger of fermenting. In the spring when the yards are cleaned out, if it be not immediately spread upon the soil and plowed in, it should be mixed with additional muck, as it is very prone to fire-fang.

**Profits of Sheep Husbandry.**—It would perhaps be too much to say that no animal pays better upon the farm than sheep. The amount of profit will depend something upon location and upon the character of the farm. Where the circumstances are favorable, we are confident it will pay well enough to keep sheep and to feed them for the butcher. This business is attracting more and more attention in the North and East every year, and mutton enters more largely into the family marketing. Many of the farmers on the Connecticut, in New-Hampshire and Vermont, are feeding all the grain they can raise to sheep. They buy wethers, and put them up about the 1st of December, feeding on cob meal and oats for grain. In March they shear them, and send to market when they will weigh 150 pounds and upward, and will bring from four to six cents a pound live weight.

### Right on the Dog Question.

In these days of political trucking and neglect of executive interference in behalf of the welfare of the community, it is refreshing to meet an instance of such outspoken decision and firmness for the right, as is manifested in the following letter of Gov. Randall, of Wisconsin. He had received many letters inquiring if he had really signed the "Dog Law" recently passed by the Legislature of that State, and which was printed in the *Agriculturist* for July. The writers also made complaint of the difficulty of enforcing the Law. He replies thus:

EXECUTIVE OFFICE, Madison, July 6, 1860.

Dear Sir: Your letter in regard to the "Dog Law" is received. The bill was properly signed, and is the law of this State; and that law will not be repealed with my approbation, while I remain in office. No good citizen will object to it, or refuse to obey it. A man who is able to own a dog, which costs as much to keep as to keep a cow, is able to get a collar for him. No good citizen will refuse to make the sacrifice of obedience to that law, when he must know that if it is enforced, it will save to the farmers and stock-growers of this State from \$40,000 to \$60,000 every year, and increase the number of wool-growers very largely. Every human life lost by the bite of a dog, is worth more than all the dogs in the country. A man who is not willing to sacrifice one dollar for his privilege, where so great a benefit may accrue to the State by compliance with the provisions of the act, ought to be kicked out of it.

Very truly yours,  
ALEX. W. RANDALL.

### Don't give Pumpkin Seeds to Cows.

A subscriber sends a long communication against feeding pumpkins to cows. The writer's reasoning is not entirely sound, and does not agree with our own experience and observation. As a general rule we are quite sure that pumpkins increase rather than diminish the amount of milk; and instead of making neat stock grow poor, we have fattened large numbers of cattle on

pumpkins alone. There is one suggestion in our correspondent's letter, however, which may be worthy of attention. He refers to the fact that the seeds of pumpkins have a decided *diuretic* (urine producing) effect upon the human organs, and that if they have the same effect upon cows, the excessive flow of urine must necessarily reduce the flow of the milky fluid. He advises that when pumpkins are fed, the seeds should be taken out. This idea is plausible, and worth acting upon.

### For the American Agriculturist Shoeing Horses.

In the July number of the *Agriculturist*, I noticed an article on the "Contraction of Horses' Feet," with which I agree on some points, while on others I must disagree. The slight contraction of horses' feet does not necessarily produce unsoundness. Yet all unnatural conditions of the hoof are dangerous, and should be prevented if possible.

I think, however, that the removal of shoes every three or four weeks, shortening the toe, thinning the sole, etc., instead of being a remedy for the difficulty, will, in three-fourths of the cases, produce it and many other unnatural conditions of the foot. Thinning the sole, as well as trimming the frog, except to remove the rotten substance, has a bad tendency, especially when the horse is used on hard roads in dry weather. It destroys the moisture and elasticity calculated to promote the growth and expansion of the foot. Shortening the toe, though measurably necessary, requires the exercise of some judgment. Although enough should be taken off both at the bottom and front to leave the foot in good shape, care should be taken never to weaken it, as much in a good foot depends on the firmness of the toe.

If shoes are properly forged, fitted, and put on, they can remain from five to seven weeks without inconvenience, where the horse is used constantly on hard roads, or from eight to twelve weeks, and even longer, where he is moderately used on a farm; and it is highly necessary they should stay from six to eight weeks, to afford the foot time to grow and accumulate moisture and elasticity—further time than that is a matter of economy, but they should not be allowed to remain longer than from twelve to fourteen weeks. I know horses used on farms, that have been shod regularly only four times a year for many years, that are the best of animals, free of all lameness, with perfect shaped feet; and many that work partly on the roads and partly on the farm, which are shod every two months, and are always in good order for work. I have worked in shops where often shoeing, whittling and burning, with the use of a little strong medicine, kept many a poor animal in misery.

When a shoe is accidentally pulled off, or is loose three weeks after setting, it should be considered a misfortune, and the horse taken to the shop, if possible, without injuring the hoof. Care should then be taken to use as many of the old nail holes as are sound. Avoid nailing to the hoof with shallow nail holes, which are apt to give way or split off. Avoid also leaving open old nail holes which terminate on the shoe; they hold mud and sand to rot the hoof. In case of shoes being pulled off when the horse is at work, every farmer and teamster should be prepared with a leather shoe to be worn to the shop. This may easily be made of an old boot leg, by fastening a few thicknesses of heavy leather for a bottom or sole, and splitting it behind, to tie it around the foot.

I have treated a number of cases of hoof-bound horses to great advantage, and some have been permanently cured, by shoeing with shoes of good Swede iron, forged narrow in the tread, and fitted as wide at the heels as they would permit, with the calks inclining outward, and the foot carefully cleansed of all dead substances. The shoe was tightly nailed close to the heels, and spread with a pair of tongs, (a simple process known to every blacksmith,) about a quarter of an inch, or until the heels are visibly opened; then, spread once in two weeks, and again in four weeks, and reset at the end of eight weeks, all the time keeping the hoof moist with fish oil. I never knew a case benefited where the blacksmith was so often applied to as to impede the part of the work designed to be done by nature. MAHLON BAKER.

Dearborn Co., Ind.

### Hints on Horseback Riding.

A person riding on horseback, is either a most graceful, or a most awkward object. A man may walk without much elegance, and still attract no particular attention, but a bungling performance on horseback makes the unhappy sufferer the butt for every beholder, and he can rally nothing of self-respect, to shield himself from the full force of ridicule. A poor rider feels as meanly as he looks. How can a man think well of himself, as he is helplessly jounced about like a lump of putty, his elbows flapping up and down like the wings of a Shanghai rooster, his brain confused in the endeavor to find his center of gravity, and his pantaloons hitching up over the tops of his boots. But to one who knows how to keep his seat properly, to so adjust himself that he shall appear a part of the animal that carries him, there is nothing more exhilarating, or that will make him feel more a man. A buggy, with its soft cushions and easy springs, may do for "nice young men," and the indolent or timid, but give us the invigorating trot, or the luxurious gallop of the living animal, with a spring in every muscular fibre, to thrill and strengthen every nerve and muscle of the rider.

One great secret in correct riding is, to make the seat the center of motion. The tyro shortens up the stirrup straps, that he may support his weight upon them, he then throws the body forward, and each spring of the horse raises him clear from the saddle, propelling him forward by a not very gentle application of horse-power in the rear. His feet are the center of motion, and he oscillates forward and backward like the piston rod of a steam engine, and the reaction upon the horse adds greatly to his fatigue. While in this position, should the horse stop suddenly, or stumble badly, the rider goes on independently, and finds himself upon the horse's withers, neck, or over his head, as the case may be. From the first, the rider should learn to hold himself firm in the seat, by grasping the side of the horse with the thighs. Let them be a vise, from which no plunge of the horse forward, upward or sideways can extricate him. Keep the body erect, or slightly inclining backward, the feet feeling the stirrup beneath, but not resting there to support the body. Let the toes be nearly parallel with the sides of the horse, or but slightly inclined outward. The muscles of the body above the hips may be relaxed, to yield to the motion imparted by the animal. Keep the elbows by the sides, not constrained, but resting there naturally and easily.

Never depend on the bridle to keep in place upon the saddle, let that be done with the muscles of the thighs. This position will be,



FARM HOUSE PORCH—FROM A PAINTING BY WALTER GOODALL.  
(Engraved for the American Agriculturist.)

tiresome at first, and the beginner should ride but a short distance at a time, until the muscles are accustomed to the use required of them. Horsemen differ as to the propriety of using one or both hands for the bridle. A horse properly trained, can easily be guided with one hand. For this purpose the reins should be drawn just tight enough, to feel the horse's mouth, then a slight turn of the hand to the right or left will be sufficient. An animal soon becomes acquainted with the peculiar manner of one who uses him frequently, and may be taught, in a short time, to turn at the increased pressure of the leg upon either side, and to take a different gait at the mere touch of the bridle.

Where there is danger from stumbling, it is safest to ride with a rather loose rein; the horse can recover himself much more readily, if he have command of the muscles of his head and neck. He will also more easily discern and avoid obstructions, if his head be left in its natural position. To bring a horse's head and neck into a painful position by a standing martingal, is both cruel and dangerous; he will fall upon a slight stumble.

**ABSENCE OF MIND.**—A *tough* one is told of a clergyman who went jogging along the road until he came to a turnpike. "What is to pay?" "Pay, sir! for what?" asked the turnpike man. "Why, my horse, to be sure." "Your horse, sir! what horse? Here is no horse, sir!" "No horse! Bless me," said he, suddenly looking down between his legs, "I thought I was on horseback."

THIS BEAUTIFUL PICTURE, the production of one of England's most gifted artists, presents a scene that cannot fail to give pleasure. The painter seems to have caught the very spirit of rural quiet that surrounds and gives a charm to country life. From the mother bending over her child, down to the little chick drinking from the pan, every part is true to nature. How much more attractive is such a picture than the representation of the most splendid pageant. Painters well understand that there is no beauty like that of nature, and their highest success is attained by faithfully copying her. Is it not singular that those living in the midst of such scenes should so little appreciate them? and that they should find greater attractions in the gaudy shows of city life? It would be strange, were it not that an appreciation of, and love for the beautiful, are greatly dependent upon culture and intellectual refinement. It is not merely the landscape, nor the eye, that are concerned in awakening the pleasing emotion of the sense of beauty, the mind is the canvas on which the tints and grouping must be thrown to give the "sweet satisfaction."

The study of the works of such masters of art is one of the surest means of developing and correcting taste. After examining such a print, one turns almost with contempt from the coarse, cheap engravings that are spread upon the pages of many of the flashy papers of the day.

It is greatly to be desired that the love of the beautiful should be increased. When it is fairly awakened, its effects will be seen in the improvement of the dwelling, the cultivation of flowers, the planting of trees, and in the more genial spir-

it which a home so adorned, brings to its occupants. We have repeated this sentiment again and again, and still continue to urge it, for it has much to do with the happiness of the household.

We instinctively associate the beautiful with the good and virtuous, and not without reason. There is little room and less desire for the excitements of vice, when the mind is entertained with more pleasing images, and hence it is that we are not disappointed in our expectations of finding a higher moral tone prevailing in the country, where nature's gifts are bestowed without stint. He who surrounds his dwelling with objects of taste, erects a strong barrier against many temptations to evil—a hedge of roses will more effectually keep boys from straying from the homestead, than a hedge of thorns, and girls, who find satisfactory pleasure in the cultivation of flowers, will care little for fashionable display.

#### Facts that Bear Repeating.

SOURCES OF NOURISHMENT—COLD AND WARM SOILS.

Plants have very little locomotive power. They can send abroad their seeds on the wings of the wind, they can stretch their roots out on every side, but the plants themselves must remain where they are set by chance or the hand of man; they cannot go about in search of food. If our fields and gardens do not contain the kind of soils which our plants need, they must die or lead a miserable existence, unless we come to their aid. As plants are quite different in their habits and wants, they must be treated to different kinds of earth and exposures. And it is no small



part of a farmer's study to ascertain what these various demands are.

One thing is very plain, though many are slow to learn it, that some plants derive a larger part of their nourishment from the air through their leaves, than from the earth through their roots. Take an interesting illustration which has just fallen under our notice: The *Tropæolum tricolorum* often attains twelve to fourteen feet in height, and it has a thousand or more leaves and flowers, yet the stem near the ground is fine and hair-like. Is it possible that all this foliage can derive much of its sustenance through that delicate stem? It must come chiefly through the leaves. So it is with clover and many other plants. When a farmer plows in a crop of green clover, he plows in more manure from the atmosphere than from his barn-yard.

Some seeds require a warmer soil to germinate in, than others do: some seeds and plants seem at home in cool and moist ground. Of such like facts, the farmer should have a full knowledge.

Land which has a large mixture of clay in its composition, is cold. It does not absorb heat as readily as one into which sand largely enters. Dark colored soils conduct heat better than light colored. Everybody knows that a black coat in the month of August is hotter than a white one. So a dark soil, other things being the same, is warmer than a light one. Yet not always so. Black soils sometimes contain large quantities of vegetable and carbonaceous matters which, though they attract heat from the sun, do not conduct it well. The surface may be very warm, but the body of soil beneath may be quite cold.

Wet soils are uniformly cold. The process of evaporating the water carries off heat rapidly. Every farmer who has attempted to reclaim swampy lands understands this very well.

But we need not pursue this subject into further detail. As nearly all the plants with which farmers and gardeners have to do, prefer a warm soil to a cold one, it becomes us to inquire how our lands may be brought to possess this general character. Clayey soils can be ameliorated by deep tillage and by frequent dressings of sand and lime. If, on the contrary, our lands are too light and sandy, they may be improved by dressings of clay and by ashes. Wet lands, of course, demand draining. The abstraction of water is the addition of heat. Draining is their first and greatest want.

#### Hearing Corn Grow.

A Western farmer who wished to impress one of his Eastern friends with a suitable idea of the fertility of his land, gave this illustration: "While riding along the road, I heard a pig squealing at a distance, and looking over into the field, I saw the animal on a full run, followed by a pumpkin vine which grew so fast that it reached the fence, run through, and a good sized pumpkin was formed before the hog got across the field." Not quite so strong was the story we used to hear told by one of our hired men about the growth of corn. He said he was hoeing corn on a hot June day, when he heard something behind him squealing. He thought it proceeded from field mice, but as it followed him, he examined carefully, and found it was the corn he had hoed. He said "it grew so fast it fairly squealed."

We don't know what has become of that man, but there is reason to suspect he has settled in Ohio, and has recently taken to writing agricultural editorials for a leading daily paper in this city. Be that as it may, in a recent number of the journal referred to, the writer, speaking of

the richness of the Sciota Valley, says: "You have probably heard the remark, 'our corn grows so fast that you can hear it.' This is supposed, by people who don't know, to be a figure of speech only; but the remark out here, is a literal fact. Go into one of these 'bottom' corn fields forty or fifty rods on a warm July day, or August night, when a bright moon is up, (for vegetation grows faster in moon-light than in darkness), and a few hours after a heavy shower that has fairly wet the earth, and waked up the drowsy corn to its influences, and as the main stalk stretches and swells in its new strength up through the contracted lips of the upper blades, they crack and burst around you like the stifled reports of ten thousand rifles! That corn field will be some inches higher at sunrise the next morning than at the last sundown. There is no mistake about it. We have heard corn grow many a time, and so every farmer along in the Sciota valley will tell you."

Let us apply figures to the above. The most rapid growth we have heard assigned to corn is 10 inches a week, or say 1½ inches per day, or an inch in 16 hours, which is one-sixteenth of an inch in an hour, or about the one-thousandth part of an inch per minute—less than one-third of the thickness of ordinary writing paper. Will this addition, mainly to the outer surface and to the ends of the leaves, produce the "stifled reports of ten thousand rifles?" We fear that with such a tremendous cracking and bursting of leaves, the corn would present a woful appearance after a few nights' growth. We suspect that no where else than in the Sciota Valley will corn be found "some inches higher at sunrise than at the last sundown," especially as it is generally admitted that the chief growth is under the influence of sunlight.

#### The Mammoth Vegetation of California.

There is, we think, some misapprehension about the wonderful vegetable productions of the Golden State. It is commonly supposed that the monstrous growth there of young trees—as, for instance, of an apple-tree twelve or fifteen feet high in a season—is the uniform style of growth; that the pears weighing three and a half pounds, the enormous turnips, beets, onions, cabbages, etc., are the ordinary productions of the country.

But it is now stated by a gentleman of the highest integrity and intelligence, (Rev. Dr. Bushnell,) for some time resident there, that this is hardly a correct view of the case. These mammoth growths do indeed occur, but they are freaks of nature, and exceptions to the general rule. The ordinary fruits, he says, are no larger than our own, and where the trees become overloaded, are quite small. The extraordinary growths sometimes seen, may be easily accounted for. First, there is, in some places, a depth and richness of soil, of which people living on the Atlantic coast can form no idea. Next, there is either a natural supply of water from springs under ground, or it is furnished by artificial irrigation. Again, the climate is remarkable for its clearness and warmth; and the growing season extends through almost the entire year. Then, too, the settings on fruit trees are generally limited, so concentrating the entire forces of the tree into the growth and ripening of a few specimens. Thinning out fruits here, is known to produce great results.

Hence we say, it is not so wonderful that fruits and vegetables which happen to enjoy all of these favorable circumstances, should grow beyond ordinary limits. But such depth and richness of

soil and such irrigation, are the exception to the general rule, and where these are not found, the wonderful growths do not appear.

Then, in reference to the famous Big Trees, *Sequoia gigantea*, or *Wellingtonia*, of which so much has been written, our authority says: "They depend in part on the same contingencies, and partly on the remarkable longevity of the species. A tree that is watered at its roots, having a deep, almost immeasurable mold in which to stand, and not so much as one hour's umbrella of cloud to fence off the sun for the whole warm season, and a capacity to live withal for two thousand years or more, may as well grow three hundred and fifty or four hundred feet high and twenty feet in diameter, and sound to the center, at the age of thirteen hundred years, as to make any smaller figure with conditions proportionally restricted."

Of grape-culture there, he says: "It promises much. Whether it can be successfully prosecuted without irrigation, is doubtful, though it is well known that old, deep-footed vines will bear a crop without. It is commonly believed that California is hereafter to become the great wine-growing country of the Pacific."

"The apples are large and fair, and wonderfully precocious in bearing, but there is reason to suspect, from experiments made in the old Mission-gardens, that they may be short-lived."

"The strawberry naturally dries up after bearing one crop, but may be made to fruit several times a year if artificially watered."

California, however, like all other countries, has a variety of soil, including all shades of fertility.

#### Small versus Large Farms.

PEEP INTO A FARMER'S ACCOUNT BOOK—ANECDOTE OF BAKEWELL.

By means of a little stratagem, with perhaps a little editorial impudence, we managed the other day to get hold of a farmer's private account book, and notwithstanding our previous strong belief in the theory that the same amount of capital, labor, and skill, expended upon a small farm, is more profitable than if spread out over one twice as large, we confess to having been a little surprised at the facts and figures the book revealed. We will call no names, and therefore betray no confidence if we publish some notes from the book. The farm contains 97 acres, 8 of which are woodland, and 2 are taken up with a lawn, and about 3 more by a street and lanes, leaving 84 acres in cultivation. The farm cost \$13,400. The proprietor is the son of a wealthy man in business in New-York, and he remained in his father's office until 22 years of age, where he acquired thorough business habits. In accordance with his own choice, his father bought and stocked this farm for him, instead of establishing him in business in the city. We found in the account book a careful record of every penny of income and expenditure, even to the sale of some old iron, and the small sums paid for children's toys, transient newspapers, etc., etc. All farm produce, vegetables, fruit, etc., from the farm and garden consumed in the family, was charged to "family expenses" at the market price. Cash received and cash paid out were so accurately recorded, that at the end of one year we find a difference of only 17 cents in the footings. A daily record was made of every transaction, and the items were re-arranged in ledger columns in the second half of the same book, under the several heads of "family expenses," "personal expenses," charges to separate fields for manure,



labor, and seed, with credit for returns, etc. Under a subdivision of family expenses, we find charges for carriage and horses with driver, but a credit was given for all the work the man did upon the farm, and the amount was charged to the farm.

But to omit further particulars, let us look at the results shown by the balance sheet. The family live in good style, entertain their friends, travel somewhat, annually, etc., and yet, after deducting all expenses of every kind, including the interest on the land and stock, depreciation of implements and buildings by wear and age, and adding a small amount for permanent improvements, but nothing for increased value of land, the balance sheet showed a net profit for one year of \$1,483 67. The total charge under family and personal expenses, exclusive of rent which was not reckoned, amounted to \$1,321 44, which, added to the net income, would make the net profit \$2,805 11. The principal crops were hay, corn, barley, oats, peas, potatoes, carrots, and turnips, and one acre in cabbages.

Now for the lesson which this example teaches. The proprietor devotes the same thought, energy, and business tact to his present occupation, that his father has given to his city pursuits. His table is supplied with half a dozen of the leading agricultural papers, two or three weeklies, (including one local paper, and one church paper,) and one daily which gives him the general news and keeps him up with the state of the market. One great secret of his success, and the one to which we wish to call particular attention, is in the fact that he cultivates no more land than he can cultivate well. He could, by the asking, have an adjoining farm, (his father would purchase it for him,) but he says he has all the land he can attend to, and doubts if he could use any more profitably. His soil is naturally of only about average quality, but every foot is brought to the highest fertility by thorough tillage, and especially by manuring. Besides the large amount of manure made upon the farm, we found charged to farm expenses for one year \$816 25 paid out, in part for Peruvian guano, ashes, bone dust, etc., but mainly for stable manure brought from New-York, partly in wagons returning from market, and partly in sloops by water, and carted inland.

The above example is far from being the strongest one that could be given to show the profit of comparatively small areas of land; it is a case of general farming done in a thorough manner, and it may be studied with profit by that large class who always feel poor until they own all the land in sight of their dwellings. From an observation somewhat extended, we have come to the conclusion that very few men comparatively are capable of cultivating 100 acres of land perfectly; and we judge that by far the largest class would make more money at farming if their acres were positively limited to fifty, at most.

Another lesson to be derived from the above example should not be passed over. We asked the proprietor if he did not sometimes regret that he had not gone into business in the city, where he might have accumulated a large fortune? His answer was in effect, that he was abundantly satisfied; that he really labored less there, and suffered far less anxiety than most business men in the city; that ninety-five out of every hundred who commenced business failed, and not one in a hundred became wealthy, and he was not sure of being among the successful ones; that he lived independently on his farm, unannoyed by city turmoil, and untrammelled by city fashions; that his children were growing up healthy and

uncontaminated by the moral or physical atmosphere of the city; and finally that his net income was enough to satisfy any reasonable man.

Apropos to the above, we give an anecdote of the late Mr. Bakewell, the noted stock breeder of Dishley, England, which is related in a lecture by Mr. Beasley, recently published in London: Mr. Bakewell was not only an eminent farmer and stock breeder, but a very shrewd man, and his neighbors were in the habit of resorting to him for counsel and advice. On one occasion an old friend went to pay him a visit for the purpose of explaining to him his position, and at the same time begged that he would recommend him what to do. He had lived all his life upon his own farm of 1000 acres; he lived very well, but he had never saved a shilling. He had three daughters, and the eldest was about to be married; he highly approved of the match, but the intended husband expected some portion, and he had nothing to give him. Should he mortgage his estate, or what should he do? Mr. Bakewell begged him to spend the night with him, and promised the next morning to give him the result of his cogitations. Accordingly, the next morning, when they met at breakfast, Bakewell said, "I have made up my mind what you ought to do; give your son-in-law one-fourth of the farm, keep the remaining three-fourths, do not part with any portion of your capital and stock, and work the remaining three-fourths with it. Do it better than you have hitherto done, and your income will be rather increased than diminished." His friend followed his advice; but at the end of two or three years, another daughter was to be married, and the perplexed father again resorted to his friend Bakewell for advice, under this new difficulty. Bakewell coolly said, he had watched his proceedings, and seen their results; he must do in this case as he had done before; he must give up another fourth of his farm, and keep the original capital and stock. The father seemed somewhat puzzled, but, as the first experiment had succeeded, he determined to try it in this case also. Last of all the youngest daughter was to be married, and, in utter despair, the poor father paid another visit to Dishley to explain his perplexity. "Well," said Bakewell, "tell me honestly whether your income has diminished by having reduced your farm by one-half?" The father acknowledged he thought it had not. "Then," said Bakewell, "you must give up another fourth of your farm, and keep the remaining 250 acres for yourself, and, to tell you the truth, you will then have just such a farm as your stock, your capital, and your head are fit for, and will be a better and happier man than ever." Old Bakewell used to tell this story with great glee, and declared his friend left as much stock and capital upon the 250 acres as he had ever had upon the one thousand, and, as he believed, made a better income out of it. This may be a somewhat exaggerated statement, but of this I am sure; a small, well cultivated farm, will make a better return than a large ill-cultivated one.

#### We give up the Moles.

For several years past we have taken the part of the moles, so much so, that one old gardener was heard to say: "... the *Agriculturist* was generally so accurate that he could, without reading it, sign his name at the end of every number as an endorser, if the editor would only promise never to say another word in favor of moles." Well, we are at last almost ready to make that promise. Moles feed largely on insects, and we have thought the good they do in this way, would

overbalance any depredations they might be guilty of. Just walk out with us into our vegetable garden. Here are eight rows of corn, each sixty feet long, and seven of the rows are good for nothing. They were planted in drills, the soil being loosened and mixed with manure before the seed was put in. The corn came up nicely and promised well; but in one night, the moles, just for the fun of the thing, commenced at one end of each of the drills, and following the loosened earth from end to end, every shoot of corn in seven rows was unceremoniously lifted and uprooted. The ground was replaced, and the soil packed down, and a flat stone set across the ends of the mole paths. Very soon after, the rascals entered the drills inside of the stones, and again threw out the corn.

Here are 50 hills of sweet potatoes which were nicely formed and rounded up. The moles have plowed through the entire patch in all directions, disfiguring it, and spoiling many of the plants. There are some nice strawberry beds, all laid off with regular paths between them. The moles have cut up the ground as badly as a regular troop of sappers and miners, and but for the persistence of these hardy plants, many of them would have been killed. As it is, they are much injured, and the beauty of the beds is destroyed.

So it is all over our grounds, not excepting a fine new lawn. The thorough spading of the earth last Spring seems to have prepared it just to suit the moles, and they have come from elsewhere, or multiplied wonderfully, so that there is no living with them. We can catch and destroy most insects, for they work above ground as if engaged in an honest business, but these sneaking "varmints" that stealthily work under the ground, we can endure no longer. War is proclaimed, and we now write to ask some of our more experienced readers to tell us how to wage it most successfully. Traps we have little faith in, so far as we have seen them. We would meet stealth with stealth, by resorting to secret poison, but we have not yet succeeded in getting the enemy to eat it. What shall be done?

#### Follow up the Apple Borer.

It is not yet too late to get at this most destructive enemy of our orchards. In the Summer, many farmers are so busy, that they do not find time to look after his depredations. He does his work in the dark, and, unlike other enemies, there is nothing to remind you of his presence, until he has done the mischief. Caterpillars attract attention to their mischief by weaving their silken web over their young. The signal is as distinct as the sign of small pox on a white flag, and you have fair warning. The scale bug also hangs out his banner, and the most careless observer can see, at a glance, that a brush and soapsuds are in demand.

But that sly scoundrel grubs about the collar of the tree, on the most sheltered and secluded side, and nothing but close inspection will disclose the sawdust, which is the unfailing sign of his presence. Every tree in the orchard, or garden, and every quince bush should be examined, at least twice a year, for these grubs. Trees six inches through are often destroyed by them before the fruit grower suspects their presence. Examine the trunk up to two feet above the ground, and also remove the dirt for a few inches around the collar, and with the back of your knife scrape the bark, removing the scarf. This will disclose the condition of the bark. If healthy, you are assured of the fact, and have no more solicitude



until next season. If sawdust is visible, or any part of the bark seems dead, remove the decayed part with a sharp pointed knife. The borer leaves behind him a hole packed full of sawdust, and this is to be followed up with the knife, until you come upon the sinner taken in the very act. Put the sharp steel into him without any compunctions of conscience.

We have found it a good plan to keep ashes or lime around the collar of the tree. They are not only distasteful to the borer, but they aid the growth of the tree, and have a tendency to throw it into bearing. These and other insects are now so numerous, in the older States, that, if we have apples, we must give constant attention to the trees. This work can be done at any time before the ground closes up for the winter.

### Inverted Trees.

So similar are the organs of roots and branches that, in many cases, they will thrive well if they are made to change places. Andrew Knight, the eminent physiologist of England, was the first to discover this. If we bend down a young plum or cherry tree, and bury the branches, (or a large portion of them,) in the earth, they will throw out roots, and the original roots being afterwards gradually detached, will send forth leaves, and in the course of time will produce flowers and fruit. Let some of the young orchardists whom we are training up, try this experiment, and report progress to us.

### Superstition about the Ash Tree.

In the Highlands of Scotland, at the birth of a child, it is said that the nurse takes a branch of the ash tree, one end of which she puts into the fire, and while it is burning, receives into a spoon the sap which oozes from the other end: this she gives to the child to be mingled with its first blood. It is supposed to impart wonderful virtue.

In Kings county, Scotland, near Kenetry church is a famous Ash, the trunk of which is now twenty one feet ten inches in circumference. When a funeral of one of the peasantry passes by this tree, the procession pauses, the body is laid down for a few minutes, while all offer a few words of prayer. Then each person casts a stone to increase the heap which has been accumulated over its roots. This is imagined to benefit both the dead and the living.

There is an ancient saying that "a serpent would rather creep into the fire than over a twig of an ash-tree." Cowley, enumerating various prodigies, says:

"On the wild Ash's top the bats and owls,  
With all night, ominous, and baleful fowls,  
Sate brooding, while the screeching of the doves  
Profaned and violated all the groves."

There, we have recorded superstition enough for one day. It is surprising how many of such follies will creep into men's minds. Let us avoid teaching them to our children.

### What can be Done with the Gooseberry.

"What fruit is this?" has been frequently asked, as visitors to the *Agriculturist* office have examined jars in which some extraordinary specimens are preserved in alcohol, and exclamations of incredulity have often followed when we have replied "Gooseberries." "They look like mammoth plums" says one; "better call them gander berries" facetiously suggests another. To those who have seen only the common sorts generally grown, these berries are truly a marvel. They

average over four and a half inches in circumference, and unlike many other fruits, the increased size is not at the expense of flavor. Those in our possession are not the largest grown in the neighborhood from which they were received, but were specimens *too small* to enter for competition at the Annual Gooseberry Exhibition held at Paterson, N. J., on the 16th of July.

We are indebted to Mr. Thomas Graves for the samples, and for the following notes on the Exhibition. A comparison with the weights of fruit exhibited previous years, and published in our last volume, shows that the berries are still improving. The report is as follows:

Name of Grower.	Name of Berries.	Color.	oz. pnts. grs.
H. Wilkinson...	Speedwell...	Red...	*1 2 0
James Cocker...	Conquering Hero...	Red...	*1 00 05
Isaac Cocker...	Pilot...	Yellow...	*1 00 22
George Porrett...	Paterson Seedling, Am.	Green...	*0 13 07
H. Isherwood...	Floria...	White...	*0 14 00
Jas. Cocker, Jr.	Pilot...	Yellow...	*0 15 08
W. Scowcroft...	Pilot...	Yellow...	*0 15 08
H. Wilkinson...	Speedwell...	Red...	*1 01 09
Isaac Cocker...	Conquering Hero...	Red...	18 10
George Porrett...	Passaic, Am. Seedling	Red...	18 06
James Cocker...	Useful...	Red...	17 10
H. Wilkinson...	Slaughterman...	Red...	16 15
J. Fairclough...	Lion...	Red...	16 00
J. Fairclough...	Companion...	Red...	15 22
George Porrett...	Maiden...	Red...	15 08
Isaac Cocker...	Pilot...	Yellow...	19 22
Isaac Cocker...	Levelee...	Yellow...	19 15
George Porrett...	Railroad...	Yellow...	19 15
Isaac Cocker...	Cathernier...	Yellow...	17 14
J. Fairclough...	Creeping Jane...	Yellow...	16 00
James Cocker...	Two to one...	Yellow...	15 16
E. F. Garside...	Drill...	Yellow...	14 20
George Porrett...	Washington, A. seedling	Yellow...	13 15
Isaac Cocker...	Overall...	Green...	19 12
Isaac Cocker...	Turnout...	Green...	18 20
Isaac Cocker...	Thumper...	Green...	18 02
J. Fairclough...	Green Wonderful...	Green...	17 16
J. Fairclough...	Queen Victoria...	Green...	16 10
J. Fairclough...	Scantling Green...	Green...	13 22
George Porrett...	General...	Green...	09 00
George Porrett...	Seedling...	Green...	10 17
J. Fairclough...	White Lion...	White...	17 15
Isaac Cocker...	London City...	White...	17 04
James Cocker...	Cosiek...	White...	16 14
Isaac Cocker...	Garside White...	White...	16 07
J. Fairclough...	Freedom...	White...	15 10
J. Fairclough...	Antagonist...	White...	15 09
Isaac Cocker...	Eagle...	White...	15 14
H. Wilkinson...	Tally Ho...	White...	14 09

\* Prizes awarded. † Maiden prizes awarded.

Mr. George Porrett exhibited a pair of twin berries weighing 1 oz. 17 pwt. 20 grs. Mr. Wilkinson's largest berry weighed 1 oz. 4 dwts., but being bursted, was not allowed in competition.

Those not designated in the above table as American Seedlings, were English sorts. The exhibition was largely attended, and gave great satisfaction. It will aid in bringing this excellent fruit into more general and deserved notice, to know what results can be obtained from painstaking in its cultivation.

### American Pomological Society.

We give below the official announcement of the Eighth Session of the American Pomological Society, to be held at Philadelphia, beginning on the 11th day of this month. The design of the Society, and the objects to be accomplished, are so fully set forth in the announcement below, that nothing need be said on this. We will offer a suggestion to the members. This Society may do much for the promotion of fruit growing, as we doubt not it has already done. But it should take into consideration all classes of fruit, and sufficient time should be taken at the meeting to do justice to each department. Two or three days once in two years is not time enough. The meeting should remain in session nearly a week. Again, it is well known that several of the leading members of the Society are specially interested in pear culture, and owing to this fact, more than half of the time of the last meeting was devoted to this one fruit, and the discussion upon several other fruits was crowded into a few minutes each. We suggest that at the forthcoming meeting the Society first take up the smaller fruits, and go through with them thoroughly, fol-

lowing with grapes, apples, etc., and then devote what time remains to the discussion of pears and other specialties. In this way the Society will consult the interest of the great mass of the people. While we would not say one word against pear culture, but would desire to see this fruit much more generally grown, the small fruits, strawberries, raspberries, blackberries, currants, grapes, etc., are really the most important for three-fourths of all the cultivators in the country. As these have received comparatively little attention at former meetings of the Society, we hope they may come in for the first and most prominent place in the discussion at the Philadelphia meeting. If the Society shall do no more than to awaken such an interest in these fruits as to be the means of securing a plot of improved strawberries of the best kind, on twice as many farms and village plots as they are now found upon, it will have accomplished a vast amount of real good to the country.

The Eighth Session of this Institution will be held in the city of Philadelphia, commencing on the 11th of September, at 10 o'clock A. M., and will be continued for several days.

This Society, the first National Institution for the promotion of Pomological Science, was organized in the year 1848. Its sessions have brought together the most distinguished cultivators of our country; its transactions have embodied their various researches and ripest experience, and its Catalogue of Fruits has become the acknowledged standard of American Pomology.

Its example has created a general taste for this science, inspired pomologists with greater zeal, and called into existence many kindred associations. Its progress has been remarkable and gratifying, but it still has a great work to perform. Its general catalogue should, from time to time, be enlarged and perfected, and local catalogues formed, embracing the fruits adapted to each State and Territory of the Union. The last of these suggestions was made by the Chairman of the General Fruit Committee, at the seventh session of the Society, in the year 1855. This has been carefully considered, and is deemed worthy of special attention. It is, therefore, earnestly recommended that each State Pomological, Horticultural, or Agricultural Society, charge its Fruit Committee with the duty of collecting information, and presenting the same, with descriptive lists of Fruits adapted to their location.

The importance of this subject, and the increasing value of the fruit crop of the United States, call for prompt and cordial response to this request,—for a careful preparation of said list, and for a full and able representation, at the approaching session, from all parts of the country.

The various State Committees of this Society are expected to submit accurate and full reports of the condition and progress of fruit culture within their limits, together with definite answers to each of the following questions. These reports, it is desirable, should be forwarded to the Chairman of the General Fruit Committee, Hon. SAMUEL WALKER, Roxbury, Mass., if possible, as early as the 1st of September, or to THOMAS W. FIELD, Esq., Secretary, Brooklyn, New-York.

What six, twelve, and twenty varieties of the APPLE are best adapted to an orchard of one hundred trees, for family use,—and how many of each sort should it contain? What varieties, and how many of each, are best for an orchard of one thousand trees, designed to bear fruit for the market?

What six and twelve varieties of the PEAR are best for family use on the Pear stock? What varieties on the Quince stock? What varieties, and how many of each of these are best adapted to a Pear orchard of one hundred or of one thousand trees?

Answers to these questions should be made from reliable experience, and with reference to the proximity or remoteness of the market.

Held, as this Convention will be, in a city easily accessible from all parts of the country, it is anticipated that the coming session will be one of the most useful the Society has ever held. Societies, therefore, in every State and Territory of the Union, and the Provinces of British America, are requested to send such number of delegates as they may choose to elect. Fruit-growers, Nurserymen, and all others interested in the art of Pomology, are invited to be present—to become members, and to take part in the deliberations of the Convention.

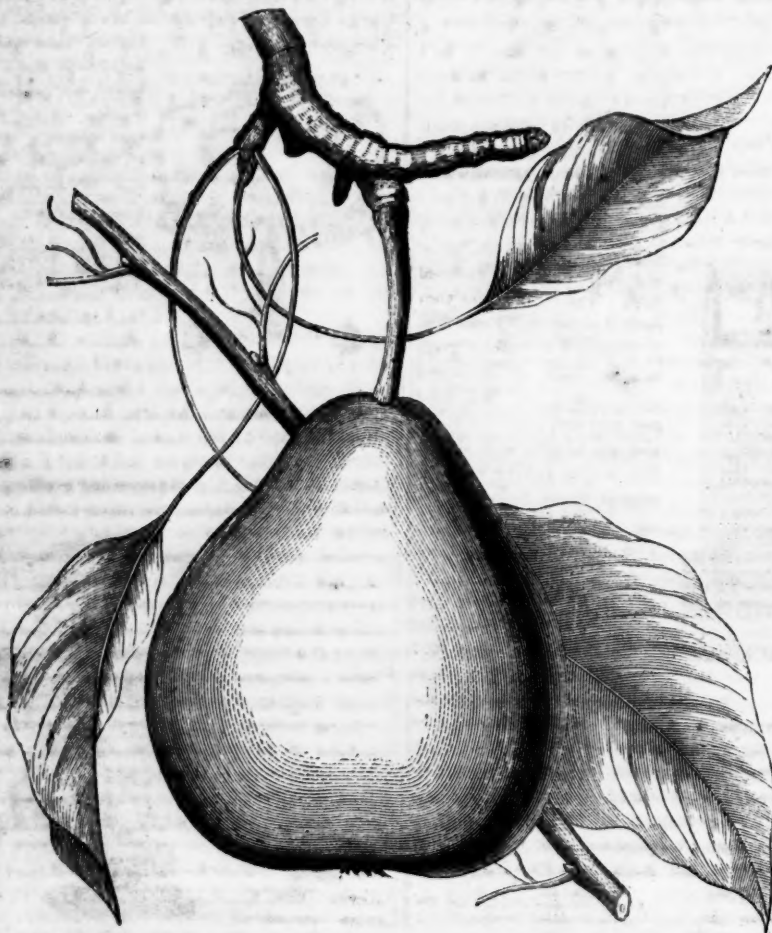
In order to increase as much as possible the interest of the occasion, members and delegates are requested to forward for Exhibition as large collections of fruit as practicable, including specimens of all the rare and valuable varieties grown in their respective districts, and esteemed worthy of notice; also, papers descriptive of their mode of cultivation—of diseases and insects injurious to vegetation—of remedies for the same, and to communicate whatever may aid in promoting the objects of the meeting. Each contributor is requested to make out a complete list of his contributions, and present the same with his fruits, that a report of all the varieties entered, may be submitted to the meeting as soon as practicable after its organization.

Societies will please transmit to the Secretary, at an early day, a list of the delegates they have appointed.

Gentlemen desirous of becoming members, can remit the admission fee to THOMAS P. JAMES, Esq., Treasurer, Philadelphia, who will furnish them with the Transactions of the Society. Life Membership, twenty dollars; Biennial, two dollars.

Packages of fruit may be addressed to THOS. P. JAMES, 630 Market-street, Philadelphia.

MARSHALL P. WILDER, President, Boston, Mass.  
THOMAS W. FIELD, Secretary, Brooklyn, N. Y.

**Beurre Superfin Pear.**

This is one of the really fine pears, the merits of which have not been sufficiently set forth in fruit books and periodicals. We have no hesitation in saying that, when better known, it will take a high rank among the rapidly increasing number of good pears. At the last meeting of the American Pomological Society it was highly eulogized, and, after a full expression of sentiment, unanimously recommended for "General Cultivation," both on the pear and quince stock. The President, Mr. Wilder, says "I have had it under cultivation for ten years, and have no hesitation in saying that it is one of the best in the catalogue. There may be an equal, but there can be no superior." Mr. Barry, remarked that it was an "excellent grower and great bearer; the fruit is of great size. When it is generally known it will be pronounced everywhere one of the finest pears under cultivation. It grows very well on the quince stock."

The fruit may be described as oblate-pyriform, medium to large, with a yellowish skin partially covered with russet, thickly sprinkled with fine dots, and shaded with crimson upon the sunny side. Stalk strong, nearly one inch in length; calyx closed, set in a narrow basin; flesh very juicy, buttery and melting, with a sprightly subacid, vinous flavor. Ripens during October and November, and remains longer in an eating state than most other varieties, which is one of its strong recommendations. Our engraving, above, was made from a medium sized specimen, but gives a very correct representation of its general appearance. It may also be added that the tree is a good grower, of a beautiful appearance, healthy, and an abundant and constant bearer.

It is of French origin, being a seedling of M. Goubalt, upon his grounds at Angers, and has thus far proved perfectly hardy in this country. We are desirous to see it more extensively planted.

#### Tree Mignonette.

Many suppose that this deliciously scented flower is essentially and necessarily an annual. But it may be made a perennial. Having started the plant from seed, as usual, give it during the summer plenty of light and heat to make it grow robust and stocky, train it upright by tying the central stalk to a stake, take off the lower branches, and pick off the flowers as soon as they mature, allowing none to go to seed. By the month of September, you will have quite a strong, bushy plant. Near the middle of this month, take it up with a ball of earth around the roots, pot it, and remove to the green-house or parlor window. It will now become a perennial shrub.

#### New and Valuable Plants.

The principal novelties for the flower garden the present season have been the various Tritomas, the Farfugium grande, and the celebrated Japan Pinks. Next year, not the least noticeable will be the new Pyrethrums. A pink variety, the *roseum*, has been cultivated in this country for a few years, but being nearly a single flower, has not attracted much attention. From the notices which now reach us, we judge that great improvements have been made upon it by the German and French hybridizers. Ten new sorts are mentioned, which, if not fully double like the old white, have the great excellence of being perfect-

ly hardy. We give the descriptions substantially as we find them:

*Atrosanguineum*: nearly two feet high, foliage dark green, flowers upwards of two inches in diameter, rays violet crimson with a yellow disc.

*Duchess de Brabant*: dwarf and compact in growth, a foot or so high, flowers nearly four inches in diameter, [can this be so!] the rays rosy crimson, with bright yellow disc.

*Charles Ballet*: large plant, handsome foliage, flower-heads large, semi-double, four inches across, the central florets short and rose-colored, and the outer rays carmine.

Several others are said to be equally attractive, the names of which are as follows: *Pyrethrum roseum nanum*, white, tinted with pink; *P. Delhayii*, crimson; *P. Tom Pouce*, *P. Gloire de Mayence*, *P. Milleri*, purplish rose, *P. Ambrose Verschaffelt*, *P. Theophite Massari*, *P. Parthenium*, flore pleno.

Out of so many jaw-breaking names, some good things ought to come. Let us watch for them. While our pen is in, we will record another Pink from Russia, which is on its way to our gardens. It is after the style of the famous *Hedewiggii*, from Japan. Its name is *Dianthus Verschaffeltii*. And what a name! The description as given by the Messrs. Henderson, of England, is in quite high-toned rhetoric: "The flowers, in their general aspect of growth, resemble a large specimen of the florist's varieties of pinks, as grown for competition, but differ in showing a single expansion of flower-lobes rather than of double petal series, and each entire blossom being from two to three inches in diameter; while the entire series of petals, instead of all combining to form a single blossom with the usual dark ray or center, as is the case in the varieties above quoted, in the present example range themselves into a series of colored spots at the base, converging to a crimson belt or zone, and together forming a large aggregate cluster or flower-head. The arrangement of these concentric series of picturesque petal rays within one simple base or crown, forms one of the most novel and singular combinations yet known in gardens, etc., etc." This is all very grand, but when we buy our specimen, we shall beg to take it without the description!

#### Sport of a Rose.

In a late number of the *Gardeners' Chronicle*, (Eng.) there is an account of a remarkable sport of the Rose. A *Devoniensis* was budded upon a white *Banksia*, and from the bud issued, in connection with the regular *Devoniensis* branch, a shoot which was neither *Banksia* nor *Devoniensis*, but partook somewhat of the character of both, with a Tea scent. The writer goes on to remark of the change the *Banksian* stock often produces upon the different varieties worked upon it, well known to practical rose growers. The sap of one variety was mingled with that of the other, and a shoot starting out at that particular point gave the sport in question. A change of this kind is also noticed in working the purple *Cytisus* upon a *Laburnum*, which gives the changeable *Cytisus Adami*.

When is a vine like a hog? when it begins to root. When is it like a soldier? when it begins to shoot. When is it like a coward? when it begins to run. What will hold it to its place? ten drills (tendrils.)

The man who wedded an opinion, found himself married to a one-eyed dear (one idea).





Fig. 1.

### Wardian Cases, or Parlor Conservatories.

Now that the season is approaching when all lovers of flowers will be forming plans for decorating their houses in Winter with plants, we think we can serve our readers no better than by a few words about Ward Cases. "Ward Cases!" And what are they? inquire some of our readers. They are small glass cases for growing plants in rooms.

All persons who have tried to cultivate plants in their stove and furnace heated dwellings, know full well how difficult it is to grow them with perfect success. Often the leaves dry up, or turn yellow and fall off; whatever growth is made, is apt to be weak and spindling, the leaves become coated with dust, insects abound, and blossoms are few and far between. To one who delights to see vegetation in its perfectly healthy state, the result is far from satisfactory.

Many methods have been devised to obviate these difficulties, as frequent sprinkling of the plants, sponging the foliage, fumigating to kill the insects, etc., but these devices furnish only a partial remedy. The tobacco smoke sets my lady into a terrible fit of coughing, and the sprinkling

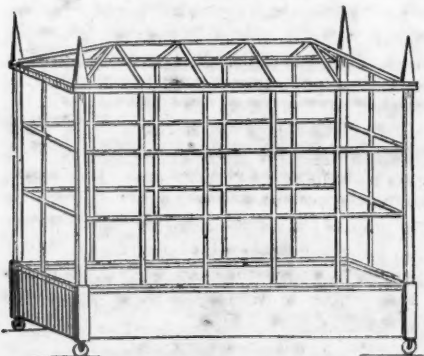


Fig. 2.

hurts her carpet and window curtains and wall paper; and then, after all the trouble, the plants don't thrive as well as could be desired.

By a seeming accident, a plan was discovered several years ago, by which nearly all of these evils can be remedied. Mr. N. B. Ward, an amateur cultivator in London, having placed the

chrysalis of a sphinx in a large bottle, together with a little moist soil and a tiny plant for the insect to feed on, the insect on which he wished to experiment died, but the plant grew, and in such perfection of health and beauty, that Mr. Ward was led to inquire whether a larger plant might not grow in a larger bottle or covered vase. The experiment succeeded perfectly. From this, he proceeded to make a glass box or case, or miniature conservatory, six feet long and four feet high and wide, and this he filled with plants. Nor was he any the less successful, though he found that all plants did not flourish with equal health.

A simple form of the Wardian Case may be seen in Fig. 2. The cases may be made in a very plain and cheap style like this, or in more expensive ones, like the

other sketches here given. One made after the pattern (fig. 2), may be constructed as follows: Let its length be equal to the width of the window before which you intend to place it. Make a wooden box for the bottom, like a common sink, about six inches deep, and line it with zinc. It should have a hole in the floor, with a plug in it, to drain off surplus water. At each corner of this box, an up-right post two inches square is framed in, with similar pieces supported by them at the top, thus making a square frame. The sides and roof, made like common window sash, are then fitted into this frame. A small section of the roof, also of the sides, is made to open for ventilation, and for putting in and taking out plants. The frame is to be well painted inside and out. The corner posts are fitted at the bottom with heavy castors, for convenience in moving the case about the room. The box should be raised above the floor high enough to allow the light from the window to fall upon the soil in the pots.

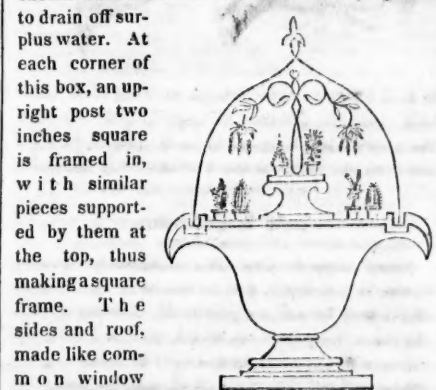


Fig. 3.

Any carpenter can make such a conservatory. So too, one can go further if he choose, and make it an elegant article of furniture. He may have a little Crystal Palace within doors. He may fit up the sides with shelves, and suspend baskets on wires from the roof for growing orchids and various trailing plants. He may divide it into separate apartments, for different kinds of plants. Fig. 1 will very well illustrate our ideas. The Dwarf Palm (*Chamaerops humilis*) from Southern Europe, has the post of honor in the center, with a trailing plant in the wire basket hanging from the dome. The wings may be filled with ferns and lycopods, and other plants

of which we will soon speak. The ferns and lycopods succeed admirably in Ward Cases, but other plants do very well. Among those which seem very much at home, we mention:



Fig. 4.

Azalea ovata, Cereus crenatus, Abelia floribunda, Statice Wildenovii, Alona corlestis, Anemone nemorosa, Dentaria bulbifera, Achimenes longiflora, Cypripedium insigne, Stanhopea grandiflora, Dendrobium speciosum, D.

cupreum, and others. Besides these which are specially adapted to the cases, the more common house-plants can be grown in them, if a little more care is given to ventilation and avoiding excess of moisture. Geraniums, roses, verbenas, petunias, camellias, fuchsias, and so on, grow in these cases in a perfection of beauty unknown elsewhere.

The inexperienced cultivator will, at first, be troubled with the dew settling on the inside of the glass and obscuring the view of the plants. To prevent this, the room should be kept at a uniform

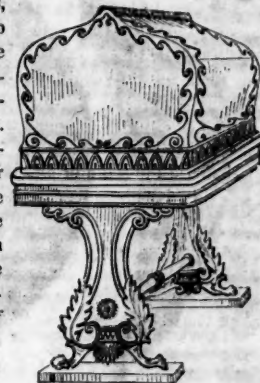


Fig. 5.

temperature, and to obviate it when it happens, open the door of the case until the air within becomes heated like that of the parlor. If the plants are well watered when they are put into the case, they will not need watering again for many weeks, nor even months, unless the door is often opened. The moisture which evaporates, is returned again to the soil.

A very happy application of this principle has been made in the manufacture of ladies' plant cases for the parlor or bedroom. These are simply a stand made in the form of a vase, if you please, and covered with a large bell glass fitted into a groove on the upper rim of the vase. The Figs. 3, 4 and 5, taken from an English work, McIntosh's "Book of the Garden," will explain what we mean. Some of these, we presume, might be obtained at the stores in our principal cities.

The whole matter is now before our readers, so far as it is needful for their present information. With a small and cheap case, made by any one handy with a few tools, many experiments might easily be tried the coming Winter; and we feel sure they would afford great satisfaction.

### Neat Window Curtains.

To the Editor of the American Agriculturist.

Is there any necessity to have things ugly because they must needs be cheap! Now in the matter of window curtains I am sure our country cousins only need a hint or two on the subject to bring about an entire change in the domestic economy of their hangings.

Must they be calico! then let the pattern be a small stripe of a faint brown or other neutral color; now get two or three yards of a calico with six or eight bright stripes in the breadth; cut

out these stripes—don't undertake to tear them—and sew them on to the front edges and ends of the curtains. Take a narrow strip of wood—a lath will answer if it be long enough—and tack one end of the curtain to it, then nail this above the window frame. Now make some bands of the strips, with which to loop up the curtains, and you will produce a much prettier effect than by nailing to your windows a bright calico with a large flowery pattern which every fold distorts.

A very pretty simple cornice may be made for lace or muslin curtains by pasting gilt paper on a lath, then nail the curtain on the back of the wood, and allow it to fall over the gilt.

Plain net curtains—even white mosquito-netting would answer—with the edges hemmed over a strip of bright-colored lining muslin about three inches wide, look very tasty. A band of the colored muslin should be covered with netting to go across the top of the window, and to loop up the sides. Then those window-shades—those landscapes with the brown woman under a burnt sienna parasol, coming out of a yellow ochre Summer-house o'ershadowed by Indian red foliage, to meet a raw-umber man in a vandyke-brown boat on a burnt-umber lake—need we have those! May we not have neat, plain white or buff shades to refresh us? If they will do all this, I will tell them how to make a mosquito net that shall rid the room of flies; having made one and tried it, I will answer for its entire efficacy.

Take that old torn mosquito netting off the frame in the window, and around the outside of said frame drive some tacks about one inch apart; let the spaces between the nails be uniform; then get a spool of very coarse black thread, make the end fast to one of the corner tacks, cross the thread to the opposite nail, pass it over two tacks, then back again and so on until you have taken it across both the short and long way of the frame, then cross it diagonally.

Put this in your window at early morning and towards evening, and the flies will go out through it; should one or two find their way in, they will go out again. But—there must be no light behind the frame—no window at the back, nor any white or light material; it must look black from the outside; that is the secret of its success.

Do you like to have the flies making free with your features—particularly the nose—in the morning when you want to sleep? I don't mean when it is time to get up, of course, I mean an hour or two before that. I arranged my frame in my bedroom window last night, and oh! how gloriously I slept until the "first bell" did what otherwise the flies would have done.

Brooklyn, N. Y.

AUNT SUE.

### How a Quiet Woman Conquered.

A friend who is noted for his naturally headstrong disposition, which impels him to "have his own way," has a most quiet and amiable companion, who governs him absolutely, and with the least possible jarring or discord. Being on very intimate terms with him, we asked him how it happened that his wife held such complete control over him that she generally had her own way. "Oh," said he, "that is the easiest thing in the world; when any difference of opinion arises, she expresses her sentiments calmly, and when, as usual, I insist that my way is right, she gives it up at once, simply saying—or looking when she does not say it—'Well have your own way and you will live the longer.' Of course I am not so mulish as to always take my own way when it is so readily conceded, and so we get on very pleasantly. I think I choose her

way most of the time."—Apropos to this, we must tell a story that has been in the *Agriculturist* drawer for some time past. We give it in the narrator's own words:

"I never undertook but once, said Tim, to set at naught the authority of my wife.—You know her way—cool, quiet, but determined as ever grew. Just after we were married, and all was nice and cozy, she got me into the habit of doing all the churning. She finished breakfast before me one morning, and slipping away from the table, she filled the churn with cream, and set it down just where I couldn't help seeing what was wanted. So I took hold readily enough, and churned till the butter came. She didn't thank me, but looked so nice and sweet about it, that I felt well paid.

Well, when the next churning day came along, she did the same thing, and I followed suit and fetched the butter. Again and again it was done just so, and I was regularly set at it every time. Not a word said, you know, of course. Well, by and by this began to be rather irksome. I wanted she should just ask me, but she never did, and I wouldn't say anything about it to save my life. So on we went. At last I made a resolve that I would not churn another time until she asked me. Churning day came, and when my breakfast—she always got nice breakfasts—when that was swallowed, there stood the churn. I got up, and standing for a few minutes, just to give her a chance, I put on my hat and walked out of doors! I stopped in the yard to give her time to call me, but never a word said she, and so with a palpitating heart I moved on. I went down town, and my foot was as restless as was that of Noah's dove. I felt as if I had done a wrong. I did not exactly feel how—but there was an indescribable sensation of guilt resting on me all the forenoon.

It seemed as if dinner would never come, and as for going home one minute before dinner, I would as soon have cut my ears off. So I went fretting and moping around till dinner hour came. Home I went, feeling very much as a criminal must, when the jury is out, having in their hands his destiny—life or death. I couldn't make up my mind exactly how she would meet me—but some kind of a storm I expected. Will you believe it—she even greeted me with a smile—never had a better dinner for me than on that day; but there stood the churn just where I left it. Not a word was said; I felt confoundedly cut, and every mouthful of that dinner seemed as if it would choke me. She didn't pay any regard to it, however, but went on just exactly as if nothing had happened. Before dinner was over, I had again resolved, and shoving back my chair, I marched to the churn and went at it, just in the old way! Splash, dip, rattle—I kept it up. As if in spite, the butter was never so long in coming! I suppose the cream standing so long had got warm, and so I redoubled my efforts.

Obstinate butter! the afternoon wore away while I was churning. I paused at last from real exhaustion, when she spoke for the first time.

"Come, Tim, my dear, you have rattled that buttermilk long enough—is it for fun you are doing it?"

I knew how it was in a flash! She had brought the butter in the forenoon, and left the buttermilk for me to exercise with! I never set up for myself in household matters after that."

To FIX PENCIL DRAWINGS.—Sketches or manuscript made with a lead pencil may be fixed; so as not to rub off, by coating the surface with a thin solution of gum arabic in water. A foreign

journal recommends to make a weak solution of isinglass in a wide shallow vessel, say a baking tin, and then draw the sheet of paper through it quickly, so that every part of it shall be touched with the fluid. Drain off the fluid, and let the paper dry. If it wrinkles, place it between sheets of clean paper and run a warm flat-iron over it. Either the isinglass or the gum arabic will fix the pencil marks.

### What a time I had with the Bugs.

To the Editor of the American Agriculturist.

You say in the June No. of the *Agriculturist*, "there is scarcely a more provoking pest of the household than the moth." What do you say of bed-bugs? I suppose it is not polite to introduce such a subject, and, three months ago, if any one had mentioned the creatures in my house, I should have set him or her down for an ill-bred, neglectful slattern for knowing anything about them. "Bugs, indeed! no tidy housekeeper was ever troubled with the pest—they never darkened the sunshine of my house"—such would have been my thoughts. Alas! pride must have a fall, and mine has experienced a severe one.

I was as happy a housekeeper, as comfortable circumstances, a contented disposition, an indulgent husband, good children, and a well kept house, could make me; but my time of trial came at length in this wise:

"See what a bargain I have brought you," said my good man triumphantly, one day, as a cartman deposited at the door a handsomely finished bedstead, just purchased at auction for five dollars. I had always been prejudiced against second-hand furniture, believing the first wear of a thing the best, but this was of so neat a pattern, and so very cheap, I could not but commend the purchase. It was forthwith placed in the children's room, who rejoiced greatly in the change from the narrow bedstead they had outgrown, and they inaugurated the change with a high frolic when they first took possession of its ample accommodations. I had noticed some suspicious looking specks about the joints, but took the precaution of giving the pieces a thorough washing, and thought no more of the matter. About a week after this, I was one morning alarmed by a singular eruption appearing upon the arms and necks of the children. I thought first of mosquito bites, but it was too early in the season—it could not be fleas, nor measles, what could it be! That evening the mystery was solved. Shortly after the children had retired to their room, I heard little Mary exclaim, "O sister! see this dear, little, tiny turtle, running all round on my pillow, where did he come from?" I went in hastily, and looked. Ugh! the bed was swarming with bugs! I removed the clothes, searched diligently through every hiding place, exterminated all I could find, put the children to bed, and then went to my own room, and had a good crying spell.

The next morning I proposed to split the vile bedstead and its contents into kindling wood, but husband objected. "I'll get you some of Lyon's powder," said he, "and you can soon rout them out." Unwilling to lose the price of the bedstead, I consented, and the infallible powder was speedily applied to every crack and crevice where a varmint could hide. There was no trouble that night, and I praised the powder that had brought relief. But the next day, as I sat sewing in the children's bedroom, I felt something upon my neck, and almost screamed as I laid my finger upon one of the execrable insects. Upon examination I found they had left the bed, apparently from dislike of the powder, and were secreted in



the cracks of the floor and the wall. "Try Costar's exterminator," said my husband, when I reported the progress the bugs had made. We did try "Costar's"—apparently a mixture of turpentine and some other ingredients. If we could get a drop upon them, the bugs were killed, otherwise, they still bade us defiance. Next a man invented a bellows that was to puff his preparation into the cracks and upon the insects. We tried that, but they cared little for puffs.

"We'll suffocate them," said I. A roll of sulphur was procured, placed in a secure vessel, set on fire in the room, and the doors and windows closed tightly. It took more than a week to get rid of the smell of sulphur, but the bugs were not to be smoked out.

Finally, I have hit it. With sixpence worth of corrosive sublimate dissolved in rum or whisky, I went carefully over and into every lurking place of the pests, applying it pretty liberally with the feather end of a quill, and after repeating the dose a few times at intervals of two or three weeks, I have conquered a peace, and happiness has returned to our dwelling.

Conclusion—Don't buy second-hand bedsteads. If bugs trouble you, try my remedy. MARTHA.

### Are Potatoes Wholesome Food?

A subscriber sends for this journal (*the Agriculturist*), a long essay, in which he attempts to prove that potatoes are an unwholesome article of food. Many of the reasons given, would apply to most other kinds of food, and we do not see how the writer, if he believes all he writes, can avoid following the advice of the colored man at Charleston during the prevalence of the cholera. After condemning various articles of food as dangerous, to the direct question, "What shall I eat then?" he replied: "Why de best way is to eat noffin' at all, and den you no 'spose yer-self." In regard to potatoes, there is no doubt that good, mealy potatoes, cooked through, are as healthful as any article of food consumed. They abound in starch, and do not, alone, furnish muscle-making material enough. They may be eaten more freely in cold weather when carbonaceous, or heat-producing food is most required; with a due quantity of lean meat, bread, cabbage, and other nitrogenous kinds of food, they are always good. But to be easily digested, they should always be baked or boiled dry, and mashed. The mashing is not essential for adults who have good molar teeth or grinders, and who will take time in eating, to masticate them well. Children, and careless or rapid eaters, are likely to swallow unmashed potatoes in small lumps. These lumps are dissolved slowly, and irritate the stomach, producing a dull heavy feeling, if not absolute pain. The fact that bits of potatoes are vomited whole, or passed off in the excrements, when there is any irritation of the stomach or bowels, is proof that such lumps should never go into the stomach.

Potatoes should not be mixed with butter or gravies in mashing, as such a compound is not easily dissolved by the gastric juice. A better plan is to mash them dry, or with a little milk, and let whatever salt and butter, or gravy, is used, be put upon the outside of each mouthful. (This remark applies to all kinds of food.) The butter, gravies, spices, etc., applied to food, are designed to come in contact with the salivary glands, and promote a flow of saliva, and this end is better secured by putting these substances upon the outside of food.

A dry, mealy potato, baked or boiled through, and mashed finely so that it would dissolve in

water stirred up with it, is just as good a food, for a sick person even, as boiled rice. We repeat that sick or well persons, young or old, should never swallow a piece of potato larger than a small pea; and to ensure this, we advise, as a general rule, to mash potatoes before bringing them to the table. We agree with our correspondent, that every potato having a black spot or lump in it, is diseased, and the whole potato should be unceremoniously rejected. There is no saving in consuming any part of such a potato. Mere cracks or openings in large potatoes, if unsurrounded with dark-colored hard matter, are not indicative of disease.

### To Restore Luster to Silk.

Every lady knows that black silk often loses its luster and looks old, long before it is worn out. It is a pity to lay it aside, yet it is not pleasant to wear, for glossiness is one of the beauties that makes silk more desirable than other fabrics; even bright new calico looks better than lusterless faded silk. We recently saw a silk dress which had been worn a long time, restored so as to look "almost as good as new," by a very simple process, a description of which we procured for the *Agriculturist*. Take two raw potatoes of ordinary size, pare them, and remove the core if they are hollow. Slice them into a half pint of cold water, and leave them over night. The next morning, sponge the silk with the water, not wetting it too freely; then iron it, and its appearance will be greatly improved.

### The Editor with his Young Readers.

#### BE YOURSELF.

How would this world appear if all the animals and plants of a species were exactly alike? Suppose, for instance, the horses all to be bay, the cows and oxen red, the dogs black, the birds with feathers precisely similar; all trees to be of equal size, and to have the same number of branches, and the flowers to be made after but one pattern. You can easily perceive there would be great regularity, but very little beauty. We should soon tire of seeing the same forms day by day. Now, we continually find pleasure in the garden, the fields, or the woods, for each time we visit them, the scene is changed. Flowers of different hues are coming out or fading away; the grass springs up, ripens, and is cut down, giving continual variety; and in the woods, where no two trees are alike, we may sit for hours without being tired of observing their different and beautiful forms.

This endless diversity of appearance is one reason why the country is so much more pleasant than the town. Here, we have street after street of houses built on almost the same plan. The staring red brick walls, and uniform level pavements, meet the eye day by day, until it is a relief to see a falling wall or a street torn up for repairs, and it gives a real treat to escape into the country for a change of objects.

In the same manner the world is far happier because men are not alike. Each individual has his own peculiar nature and character, differing in some points from every other individual. Perhaps your brother is delighted with nothing so much as whittling, making wind mills, weather vanes, and traps and notions of all sorts, while you are more amused with drawing pictures, or reading. He may be quick tempered, and you, very good natured. He may be very generous, while you are, perhaps, inclined to be selfish. And so you will find no two persons just alike in disposition, any more than in outward appearance.

Now it is very certain the Creator intended this to be so, and for very good reasons which we will not now give, though they are very plain, but only remark that this arrangement shows His wonderful power—every man, as well as every animal and plant, is a separate and distinct invention, like its fellows in general character, but greatly different in minor points. It is as if a man should make a countless number of clocks, all contrived to keep time correctly, all having the same number of wheels, yet no two containing the same arrangement of machinery. You see how much more skill this would require than to make any number after exactly the same pattern. But we leave this part of the subject for you to think of. It will

be a good theme for a school composition, to give the reasons why we are made so to differ.

The great object of this chat is to show you the absurdity of always doing "as other folks do," trying to be somebody else, instead of being yourself. If John Stokes swears, chews tobacco, or smokes, that is no good reason for your doing so. He may be like a poor neglected apple tree in the fence corner, that has never been cultivated and pruned, and taught to bear good fruit. You are growing up in the home garden, and should blossom with promise of correct habits. If Susan Tompkins wears two feathers in her bonnet, don't be unhappy because you have none. Perhaps they become her, or her parents can afford it, or twenty reasons may exist that would not suit your case any more than a sun-flower would fit a morning-glory vine.

Here is the rule—Think, and act, as is right in your own circumstances, and follow no one's bad example.

#### ANSWERS TO PROBLEMS.

No. 21—Original Rebus. Tie man D tied weight four no man: or "Time and tide wait for no man."

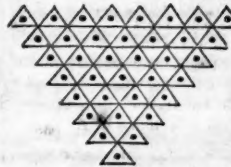
No. 22—Word Rebus. The grate being empty, a man put coal on.

No. 23—Enigma. All who have sent in an answer, agree that it is "Something," which we suppose is correct.

To save repetition of names, we annex to each the number of the problem solved correctly. "Nundao," 18, 19; B. Heritage, 20; Charles L. Hampden, 21; Edward Tatnall Jr., 21, 22, 23; A. A. Stevenson, 21; S. Henry Ward, 21, 22; Hannah E. Bartley, 21, 22, 23; H. H. Vaughan, 21; Harry Brackley, 22, 23; Helth L. Daere, 22, 23; B. F. Wallis, 22; D. A. Wagner, 23; "Whitstone," 23; (says the enigma was written by Dr. Byles of England.)

#### NEW PROBLEMS.

No. 24—Puzzle. Arrange the dots as seen in the figure, eight in the first row, seven in the second, etc.; and enclose them with a line without taking off the pencil, and without passing over the same space more than once. It can be done very easily if you



are careful to turn at the right corners.

No. 25—String Puzzle. This is for the boys, and will be quite amusing to those who have never seen it performed. Take off the coat; tie the ends of a string together and hang it upon the arm, and place the hand in the vest pocket, as shown in the figure. The puzzle is to remove the string without untying it; the hand to be kept in the vest pocket, and the string not to be put around the hand in the pocket. It will require some ingenuity for you to write out an intelligible description of the manner of performing this operation, as well as some contriving to find out how to do it.



No. 26—Enigma contributed by "Whitstone."

"Before creating, Nature will'd  
That atoms into forms should jar,  
By me the boundless space was filled,  
On me was built the first-made star.

"For me the saint will break his word,  
By the proud atheist I'm rever'd;  
At me the coward draws his sword,  
And by the hero I am fear'd.

"Scorn'd by the meek and humble mind,  
Yet often by the vain possess'd;  
Heard by the deaf, seen by the blind,  
And to the troubled conscience met.

"Than Wisdom's sacred self I'm wiser,  
And yet by every blockhead known;  
I'm freely given by the miser,  
Kept by the prodigal alone.

"As Vice deform'd, as Virtue fair,  
The courtier's loss, the patriot's gains;  
The poet's purse, the coxcomb's care;  
Guess—and you'll have me for your pains.

A Wisconsin paper says: "There is not a single person in our county jail." How many married ones are there?

You have a splendid ear, but a very poor voice, said the organ grinder to the donkey.

## UNCLE PETER'S STORY.

"Uncle Peter," as we used to call him, was the greatest favorite in the village, especially with the children. He was not handsome, his face was wrinkled, his hair white and thin, he was very lame, one leg being shorter than the other, so that he had to use a crutch. But then he was so pleasant, and had so many stories to tell about his boyhood days, and the scenes he had witnessed in his long and eventful life, that there was no place the girls and boys used to love to visit better than Uncle Peter's cottage. It was in a pleasant spot just on the edge of a wood where the children used often to play, and very frequently Uncle Peter would take his seat on the bench outside his door to watch their sports. One day, a company of girls and boys were having a merry game in the woods, when suddenly a shriek was heard, and the whole company came running pell mell, toward Uncle Peter as fast as their legs could carry them.

"Hoity, toity!" cried the old man who was sitting in his favorite place, "What's all this about? who's hurt?" "A bear! a bear!" cried one of the girls, as soon as she could get her breath; and then all began shouting and talking together, so that Uncle Peter said, "for the life of him, he could make neither head nor tail of the matter."

Just then, George Saunders, a merry but mischievous boy, came running from the woods, laughing and shouting at the top of his voice. "Ha! ha! That was a good one." The rascal had gone into Uncle Peter's barn, and taken a buffalo skin which he found there, and after wrapping himself in it, had slyly crept around through the woods to where the children were playing, and suddenly sprang out, causing their fright.

Uncle Peter gave George a pretty severe lecture for the trick, telling him that it was dangerous sport to frighten any one, that persons had been made insane, and even lost their lives by such thoughtless sport. He also gave the children some very good advice about being alarmed before they knew there was any danger. Then seeing them all look rather serious he said, "Once you might well have been afraid of bears in the woods, though they have all been driven away hundreds of miles from here, many years ago. I have good reason to remember them, as you can see by my lame leg."

"Do tell us about it," cried the children, gathering around him, and the old man related the following.

"When my father first came to this place, there was no other house within ten miles of us. It was almost an unbroken forest. We had no such comfortable house as you see now-a-days, but lived in a cabin made of rough logs, piled up just as you make a cob-house. Though we did not often see the face of white people, we had plenty of company. The Indians very often came into the neighborhood, as it was on a part of their favorite hunting ground. They were quite friendly, and we were pleased with their visits. But there were other visitors not quite so welcome. Wolves, wild cats, and bears were very plenty, and my father had many a fine calf and young pig carried off by the black shaggy rascals. One day in Autumn when I was about fifteen years old, I was husking corn in the field which we had cleared a few years before, when I heard a rustling and crackling among the dry stalks at a little distance. I supposed it to be one of the hired men, and called out, when there was a sudden rush as of some one running away. This excited my curiosity, and I pursued and soon saw a large shaggy bear with two young cubs, scampering for the woods. Away they went, piling over the fence, and after them, for I was too much excited to think of danger. In getting over the fence, one of the cubs stepped upon a loose rail which gave way, and down he rolled, bringing part of the fence upon him, at which he raised a great cry. The old one came rushing back, and spying me, made after me, at the top of her speed, with a terrible growl. It was now my turn to get out of the way, and I started for the house, shouting for father, with the bear in full chase. There was a steep shelving bank at the foot of which ran a brook, which I must cross to reach the house. Just as I came to this spot, the bear was not more than twenty feet behind me. I gave a desperate leap toward the brook, my foot slipped, and down I fell, bending my leg under me breaking it at the thigh,

and there I lay. But at that instant, crack! went a rifle, and the bear came tumbling and rolling down by my side, with a bullet through her brain. My father had heard me call, and arrived just in time to see me fall, and the bear coming on the top of the bank

this affair! I am not sure but pussy did us a favor by giving us so much pleasure from quite an unexpected source."

"I think you have found the bright side, Alice, though I am sure I never should. I almost wanted the old cat to be killed."

"Never be angry at a poor, unreasoning animal, my child. Cultivate a more noble, elevated disposition, and learn to control yourself even in the smallest matters that might disturb the quiet of your mind. It is only by such self-control that you can ever arrive at true womanhood. Look for the bright side even of your disappointments and troubles. By such a course you will make for yourself a welcome everywhere, and your own happiness will be increased a thousand fold."

## IRON WORTH MORE THAN GOLD.

If there were only one pound of gold, and one pound of iron in the world, and you had your choice of one of them, which would you take? You probably answer at once, "the gold." But would that be a wise choice? A pound of iron is really worth more than a pound of gold. The iron you could change to steel, and with this make needles, knives, scissors, and many other useful instruments which require a hard tough metal. Pure gold is a soft metal, and is adapted to very few purposes in the useful arts. It answers chiefly for making ornaments and for gilding. Because it is a scarce metal, the people of most countries have agreed to make it a standard of value. If gold were as abundant as iron, it would be cheaper than iron, for then no one would give a pound of iron for a pound of gold. Gold is not so valuable an article for exchange as it used to be. Eighteen hundred years ago, the exchange value of gold was at least ten times as great as it is now, for then there was much less of it. If gold was only used to exchange for wheat, then if there were only a million bushels of wheat, and just a million ounces of gold,

a bushel of wheat might be exchanged for an ounce of gold. But if there were twenty million bushels of wheat, and a million ounces of gold, an ounce of gold would be exchanged for twenty bushels of wheat. When wheat is very plentiful, it takes more of it to buy a given amount of gold; just so when gold is very plentiful, it takes more of it to buy a given amount of wheat. So you see the world would not be any richer than now, if a hundred times as much gold were found as there is now. The only result would be, that it would take more gold to buy other things.

## WORKING FOR A PENNY A DAY.

When in our boyhood we read in the Bible about the men working in a vineyard for a penny a day, we remember that it seemed like very small wages indeed. But let us see about this. In those days a penny was about as large as fifteen of our cents, and as money was some ten times as valuable as now, the penny a day was as good as 150 of our cents, so that those men really got as good wages as the best men now generally have in harvest time, that is a dollar and a half a day. So also when that good Samaritan gave two pence to the landlord to take care of the man who fell among thieves, you see it was equivalent to about \$3, which would probably pay for his board two weeks in a country tavern, where board was very cheap. This gift of the Samaritan was in addition to the raiment, the oil and wine, and to the promise to pay any thing more that the landlord might expend. By the same reckoning, how much was that box of "very costly" ointment worth, which Mary used upon the Saviour? When the Disciples asked if they should buy 200 penny-worth of bread, how many loaves were they calculating for at about 6 cents a loaf—a large price in those days? Remember to reckon money worth ten times as much as now, and to call a penny worth 15 cents.

## AN UNEXPECTED HUG.

The following, which is good enough to be true, is said to have happened "Out West." An organ grinder who was traveling through the country, accompanied by a tame bear, which he had trained to dance, stopped before a farmer's house late one afternoon, and after amusing the family with his performances, obtained permission to stay all night. The bear was placed in the barn for safe



My life was saved, but my leg was spoiled, for it was not until the next day that a doctor could be found to set it, and it was impossible to bring it to its right place; so I have had to go hobbling through life ever since." "But children," added Uncle Peter, "I've found out that a man can be happy with only one leg if he will do right, be contented, and try to make others happy."

## "MAKE THE BEST OF IT."

"Oh, Georgy Hays, just look here!" said little Madge Morrell. "The old gray cat just jumped through this window, and broke cousin Alice's beautiful rose geranium. Oh, isn't it too bad! How angry Alice will be."

"My sister don't get angry at such things, Miss Madge, I never saw her angry but once in my life, and that was when some boys worried a poor little kitten almost to death."

"But this is so very provoking, Georgy. Any body would be angry."

"It is really too bad, but you see if Alice does not try to make the best of it."

Pretty soon the young lady entered the room, her sunny face beaming with the bright spirit which reigned within. She was humming a sweet morning song, but she paused abruptly before her beautiful, ruined geranium.

"Ah, who has done this?" she exclaimed.

"That ugly old cat broke it, cousin Alice, I saw her, myself," said little Madge.

"Poor puss, she did not know what mischief she was doing. It was the very pet of all my flowers. But come, little cousin, don't look so long faced; we must try and make the best of it."

"I don't think there is much best to this, Alice."

"Oh yes, it is not nearly as bad as it might have been. The fine stalk is not injured, and it will soon send forth new shoots. This large broken branch will be lovely in bouquets. Let us arrange a little one for mother's room. We will place this cluster of scarlet blossoms in a wine glass, and you may run out into the garden and gather a few snow drops to put around it. There, was there ever any thing more beautiful. Now we will set the wine glass in this little saucer, and place some geranium leaves around the edge with a few snow drops mixed among them. Mother will admire it, she loves flowers so much. Now, little one, don't you think there is a bright side to



keeping. During the night, the family were alarmed by a terrible noise in the barn. Some one was screaming and shouting, "Murder! Help!" and apparently engaged in a struggle for life. The farmer hastened to the spot, followed by the organ grinder and other inmates of the house, and found the tame bear with a man in his embraces, hugging him tightly, while the poor fellow struggled frantically to escape. The bear was muzzled, and could do the man no serious injury, though he was far from comfortably situated. Upon examination, it proved to be a dishonest butcher, who had come to the barn to steal a fine calf. In the darkness he had stumbled over Bruin, who had seized him and held him fast. The organ grinder learning how matters stood, called out, "Hug him, Jack," and the bear, enjoying the sport, continued to squeeze him unmercifully, until the farmer thought he had been sufficiently punished, when he was released. The story soon spread abroad, and the butcher left the town to escape the ridicule to which it subjected him.

#### Premiums for Boys and Girls.

Our young friends will find in our Premium List for 1861, on another page, some things that will specially interest them. The most valuable are the Dictionary and Cyclopaedia Premiums, though every premium offered is worth working for. A large number of boys and a few girls have each received a splendid copy of the large Dictionary, and two boys have each earned the Cyclopaedia, (13 large volumes,) this year. Let all our enterprising boys and girls go to work and gather subscribers—they will thus not only benefit our circulation, and introduce a good paper into many new families, but they will also benefit themselves. The boys and girls of a neighborhood might join their efforts, and get a Cyclopaedia to be owned in common, and kept at the school house. Read over the premium list, and see if you can not take hold now, (while the extra numbers are offered to new subscribers,) and earn one or more of the premiums. We expect to give away a lot of Dictionaries, Cyclopedias, etc., to boys and girls. Who will have one? Who will get the first, and who the second?



Into which are thrown all sorts of paragraphs—such as NOTES and REPLIES to CORRESPONDENTS, with Useful or interesting Extracts from their Letters, &c., &c.—to be drawn from whenever we have room left here.

#### Preaching under the "Third Head."

An eccentric preacher once began his discourse thus: "My brethren, my sermon naturally divides itself under three heads. Under the First, I shall talk about things that you know, and I know. Under the Second head, I shall talk about things which I understand, but you do not. Under the third head I shall preach about certain things which you do not understand, nor I either." There is a good deal of preaching under the "third head" nowadays, and quite as much out of the pulpit as in it. The temptation to this sort of preaching is quite strong among agricultural and horticultural editors, and as for that matter, among all editors, for they are sometimes at their wit's ends, to know how to respond to the many inquiries addressed to them, in such a way as to maintain a credit for knowing everything. We are daily losing our ambition to sustain such a credit, and so when we fail to promptly respond to certain difficult questions put to us by our readers, if they can find no better excuse for our silence, we hope they will attribute it to a reluctance on our part to "preach under the third head."

**Experiment in feeding Swine.**—L. E. T. proposes that farmers who intend fattening a number of swine this season, should try the following experiment, and publish the results. Select four porkers of the same breed, age, and as near the same weight as may be. Confine them in separate pens—let each be weighed, and the weight recorded at the time of shutting up. Feed No. 1 with shelled corn; No. 2 with ground corn; No. 3 with whole boiled corn; No. 4 with cooked corn meal. Keep an exact account of the quantity fed, and the cost of cooking, extra labor, etc., and when the hogs are dressed, compare the results in weight and cost of pork. Such experiments have been made, here and there, over the country during past years; but our correspondent thinks if one hundred farmers could be induced to try it the

same season, and communicate the facts to the public, it would so settle the question in favor of cooked food, that it would be generally adopted.

**Seedling Mulberries.**—Mr. Smith Tuttle, New-Haven Co., Conn., has exhibited at our office specimens of a seedling mulberry which is worthy the notice of nurserymen and amateurs. The fruit averages about an inch long, is of a deep black color, and possesses a fine, vinous, sub-acid flavor, which must make it a favorite for eating fresh and for cooking. Mr. T., says the tree is very hardy and thrifty, and yields abundantly, the season of fruiting commencing in June and extending to September. Two other sorts, one much resembling the common native, the other somewhat like the Black English were shown by Mr. T. Their flavor was, however, inferior to the sort first described.

**Northern Muscadine Grape, etc.**—F. Bloomstrand, Plymouth Co., Mass. This grape is too foxy for even northern culture. Better plant Concord, Hartford Prolific, Diana, Delaware, or Rebecca. Leather shavings are good for mulching, and especially for putting in the trenches, under the vines.

**Wine Grapes for Kansas.**—"R." Dauphin Co., Kansas. The Isabella and Catawba are two well tried grapes for wine making. The Concord is gaining favor for the same purpose, and is largely grown in some parts of Missouri. It may safely be recommended. We would also advise a trial of Hartford Prolific and Diana, —as preferable to the Clinton.—Grape cuttings root the year they are put out, and the vines are usually cut back in the Fall or Winter, so that a "two year old vine" may have a "three year old root." The two year old vine will bear sooner than the two year old root. In transplanting, it is better to cut back most of the vine so as to get a strong new shoot the first season. "Bright's Grape Culture" (50c.) will give you much valuable information.

**Planting a Vineyard.**—Wm. A. Traker, Huntingdon Co., Pa., will find pretty full chapters upon grape culture in our former numbers. Most cultivators prefer planting, say about five feet apart, and tie each vine to a stake. If planted in rows five to six feet apart, and trained upon trellises, set the vines about eight feet distant in the row. Roots planted in the Spring will come into bearing soonest, but cuttings may be put in at the same time, for planting out another year.

**Beurre Giffard Pear.**—J. J. Vanderbilt, of Kings Co., L. I., left at our office, August 7, some very fine specimens of this really delicious, early pear, which were grown on the quince. An illustration and description will perhaps appear in our next issue.

**Roses Falling.**—E. E. Jones, Va. It is impossible to tell why your favorite rose tree sheds its flowers, without examining the plant itself. Perhaps it was budded or grafted upon another stock, and consequently short lived. Or its effort last season may have induced decay. A fruit tree or even a flowering shrub will frequently yield an extraordinary crop one year and decay the next. It is better to renew flowering shrubs and vines occasionally by bending down a branch to form a layer. This should be done while the plant is healthy.

**Marvel of Peru (Four O'Clock).**—H. N. Richardson, Chittenden Co., Vt. In our northern latitude this plant has become an annual, and it is not worth while to try to keep the roots through Winter. We succeed in getting a bloom from Spring sown seeds, by the 10th of July, and they continue in flower until killed by frost. They ripen seeds abundantly during the Summer.

**Hibiscus Described.**—W. R., Broom Co., N. Y. This is an annual, not very erect, say 18 inches high, with somewhat feathery or downy foliage, and blooms from June until frost. Flowers 1 to 2 inches across, single, of straw color, with a brown or purple center, quite pretty. The seed capsules are nearly round, and covered with hairs.

**Nasturtiums at the South.**—R. F. Clute, Chickasaw Co., Miss., states, that the Nasturtium seed he obtained of us, and also that bought of seedsmen, vegetated well, and produced fine plants with abundance of bloom, but grew to a bush form, instead of a vine, as is usual, and produced no fruit. Have others at the South noticed similar results?

**Transplanting Hyacinths and Tulips.**—G. W. Murphy, Alleghany Co., Pa. These need not be reset every season. Once in three years is sufficient. When they are to be transplanted, lift them early in July, keep in a dry place and plant again about the middle of October.

**Carnations from Seed.**—H. H. Huntress, Hillsborough Co., N. H. The production of a really fine carnation from seed, is not an easy matter. It may take years of trial, but choice new varieties are obtained in

this way. The ordinary cultivator will do better to obtain roots, or layers from such colors and forms as he fancies. The same may be said of the gladiolus.

**Norway Spruces Dying in Winter.**—H. L. Pratt, Middlesex Co., Conn. As your trees lived through the Summer, it is likely there is something in the soil not congenial to them. Perhaps there is too much moisture. Or, possibly, the trees barely survived during the Summer and vitality was about expired at the commencement of Winter. With good roots and careful transplanting even into a poor soil, we seldom expect to lose a Norway Spruce.

**Cleaning Carrot Seed.**—H. D. Todd, New-Haven Co., Conn. After the carrot seed has been cut and thoroughly dried, rub it out by hand, or pound in a box or barrel if in large quantity. When shelled, pick out the coarser portions, and lightly fan, or winnow the remainder. A gentle breeze will carry away the chaff and leave the good seed behind. A coarse sieve is a good thing for winnowing these and other light seeds, the branches, leaves, etc., remaining in the sieve.

**Kohi Rabi, Brussels Sprouts, etc.**—W. Dyer, Steuben Co., Ind. Kohi Rabi gets woody when matured. It is better to use the bulbs when a little larger than one's fist. Cut in quarters, and boil until tender, then pare and serve with butter precisely as turnips. Broccoli and Brussels Sprouts are more like cabbages. They are better in the Fall and early Winter, than after having been kept a long time. Boil a sufficient number of the little heads, or "buttons" in a cloth, until sufficiently cooked, and serve as cabbage or cauliflower.

**A "Whopper."**—Not the story, of course, but the squash-vine.—Amos Heater, Mason Co., Illinois, writes: "I planted seeds of the Mammoth Leghorn Squash, received from the *Agriculturist* office last Spring, and the hail and frost left me but a single vine. That one has grown to cover 14 acres of land! and I will have at least a two-horse load of squashes from that one plant!!!" Call this way neighbor, when the crop is gathered; we shall have a spare hat for you.

**Blue Grass for Pasture.**—J. A. Parks, Jackson Co., Mich. Blue grass (*Poa pratensis*) will grow on almost any soil. It succeeds best, however, on limestone lands—the blue grass pastures of Kentucky, where such soils predominate, have obtained world-wide celebrity. At the North, and on soils of other character, timothy is generally preferred for pasture.

**Sawdust for Manure.**—M. A. Allen, Warren Co., N. Y., inquires if saw-dust, principally pine and hemlock, which has been accumulating at the bottom of a pond some twenty years, would answer a good purpose to manure a sandy loam which has been "run" until clover will not "take" upon it. He says the deposit of saw-dust and mud can be placed upon the land at twelve cents per load. It will pay well to draw it out. Let a large pile be made; apply half a bushel of lime or leached ashes per load; fork it over occasionally and mix with stable manure if any can be obtained. Plow it in lightly, and mix it well with the soil by thorough harrowing, and clover can hardly fail to "take."

**New Insect on Rye.**—Some time since we received from Mr. Daniel Steck, Lycoming Co., Pa., specimens of stalks of rye showing the work of an insect new to us, and of whose ravages we have not previously heard any complaints. Eggs are deposited immediately above every joint of the stalk, where they soon hatch, and the presence of the larva causes the growth of a fleshy excrescence. This interferes with the development of the grain, and also weakens the stalk, often causing it to fall to the ground about the time of blossoming. Mr. S. states that many fields in Lycoming and adjoining counties have been greatly injured in this manner. We forwarded the specimens received, to an expert Entomologist, but have as yet heard nothing from them. We shall be obliged for further particulars as to the appearance and habits of the parent insect, with any information that may be given as to the best means of preventing its ravages.

**Rose Bugs on Grape Vines.**—A. B. Brumbaugh, Huntingdon Co., Pa. The bug you complain of, proves, by the specimen sent, to be the Rose Bug, which is frequently very troublesome to the grape vine, eating away the bloom and tender buds. As they are little affected by lime, soap or other substances, hand picking, or shaking them into dishes of hot water, or upon sheets, to be burned, are about the only remedies. This seems like a great task, but when daily followed up, they will soon nearly disappear. We have observed they were much more troublesome where the ground was not disturbed, than where it was cultivated. They pass the Winter in the soil to reappear in Spring for their ravages upon rose bushes, grape vines and cherry trees.

## PREMIUMS FOR 1861.

### Vol. XX.

(Subscriptions to the American Agriculturist for 1861 can begin now without extra charge.—See page 288.)

Friends, we desire to run the circulation of our *Twentieth Annual Volume* up to **100,000**. To do this we ask your kind and effective assistance, for which we are willing to divide with you all the income above the bare cost of carrying on the paper and our own living. After close figuring, and liberal terms from manufacturers, we find we can fully keep up the character of our paper, and even improve it, and yet offer you the large premiums named below. These articles are offered as direct pay for time spent in canvassing for names. *This year we make no distinction between new and old subscribers, though it is supposed that every canvasser will not only gather up the names of old subscribers, but also secure a large number of new names.*

In selecting articles for premiums, we have aimed to get such as are useful, and as have been most frequently called for by our readers. We wish it distinctly understood that these premiums are offered in good faith—no cheap, trashy, imperfect, poorly made, or second hand thing, will be sent out, but each article offered is the best of its kind, and every one will be selected by the publisher from the very best manufactured. They will be the best sold in the market at the prices named.

We offer nothing for competition. Each premium is for a specified number of subscribers, and no one's remuneration will depend upon what other unknown persons are doing. Every one aiming for a premium, knows just what he, or she, is working for; and also that if a higher premium is not secured, a lower one can be taken.

The work of collecting names can begin now with special advantage. See last page (288) for extra inducements to new subscribers.

Any extra specimen copies, or show bills, needed by canvassers, will be freely furnished. We have on hand a good show bill for this year, and shall have a new one out for 1861 before the close of this year.

Of course only one premium can be paid on the same subscriber.

Every person collecting names for premiums, can send the names with the money as fast as obtained, so that the subscribers may begin to receive their papers; but if designed for premiums, two copies of each list of names should be sent, one of them marked at the top, "For premiums," also with the name of the sender. These duplicate lists will be kept on file by themselves, to be referred to in making up the premium when any person has completed sending in names for Volume XX.

The premiums are offered for subscribers for Volume XX (1861), whenever received. Canvassers will have time for completing their lists, but the premium will be paid as soon as any list is made up—if duplicate lists are sent, to refer to at once—without these lists there may be some delay in posting up the books, and collecting together the several names sent by any individual.

No premium is sent till specifically asked for. We have many friends who send in large lists but will take no premium, and we are not certain that premiums are desired unless the fact be mentioned particularly.

It is believed that all can recommend this journal to their friends and neighbors, and urge them to take and read it. It will continue to be independent, outspoken, and reliable, the special friend, advocate, and promoter of the farmer's interest, and will aim to facilitate and lighten the labor of every household. A larger number of instructive as well as pleasing engravings, and a greater amount of really useful information, will be given in the next volume, than in any preceeding one. *Onward, upward, is our motto.*

Premiums A, to J, are offered for subscribers at the lowest club price (80c.), or at the regular price (\$1). Any person who has commenced sending in names at 80c. and finally fails to get the higher number of names, can fall back upon the smaller number, by remitting the 20 cents extra on each of the smaller number of names required.

#### Premium A.

140 Subscribers at 80 cents each, (or 95 at \$1 each,) will entitle the person getting up the club to one of *Wheeler & Wilson's* best \$50 Sewing Machines, new from the factory, and of the very best make. There is no better family machine than this made, as we have proved by nearly three years' use in our own family. We want no better.—The machines will be selected new at the manufactory, be well boxed, and forwarded without expense to the recipient, except for freight charges after leaving the city. Full instructions for setting up and using, go with each machine.

#### Premium B.

130 Subscribers at 80 cents each, (or 90 at \$1 each,) will entitle the person getting up the club to a set of *Appleton's New American Cyclopaedia*, now in course of publication, consisting of fifteen large volumes of 770 pages each. This is a magnificent work, forming a whole library embracing every topic of human knowledge. Ten volumes are now ready, and the remaining five will be furnished as fast as issued. Price, \$45.

#### Premium C.

98 Subscribers at 80 cents each, (or 69 at \$1 each,) will entitle the person getting up the club to one of *Willcox & Gibbs' \$35 Sewing Machines*, including a set of *Hemmers*. This is the best machine of its kind, (sewing with one thread), and has several points superior to other machines. It is neat, well made, simple in its operation; and having tested one for some time past in our own family, we can recommend it to those who can not afford to buy the higher priced double-thread machines. (The regular price of this machine is \$30, but we have included in our offer \$5 extra for the set of *Hemmers*, because those used with this machine are very simple and effective, and should go with every machine sent out.) The machines given as premiums, will be selected new at the factory, be well boxed, and will be forwarded to the recipient free of expense, except for freight after leaving the city. They will go out set up ready for use, with printed directions for operating.

#### Premium D.

65 Subscribers at 80 cents each, (or 32 at \$1 each,) will entitle the person getting up the club to one of the New \$10 Wringing Machines, described on page 247 of the August *Agriculturist*. This is one of the best labor-saving and clothes-saving inventions of the day, and we unhesitatingly say that it will pay to have one to assist in the washing of every family, even if of only moderate size. We would not take \$50 for our machine, if another could not be purchased.

#### Premium E.

60 Subscribers at 80 cents each, (or 30 at \$1 each,) will entitle the person getting up the club to one of *Kendall's Aneroid Barometers*, described on page 232 of the August *Agriculturist*. This is a good portable instrument, and valuable to every person as a weather guide, as well as for scientific purposes. (Price \$10.)

#### Premium F.

50 Subscribers at 80 cents each, (or 26 at \$1 each,) will entitle the person getting up the club to one of the best \$8 Straw and Hay Cutters. [If preferred, the best \$8 Subsoil Plow (two-horse) will be given.]

#### Premium G.

42 Subscribers at 80 cents each, (or 22 at \$1 each,) will entitle the person getting up the club to the new and enlarged \$6 Pictorial Edition of *Webster's Unabridged Dictionary*. This standard work comprises 1748 large 3 column pages. It is not only an ornament to every house, but is of great practical use; and its full definitions place it next to the *Cyclopaedia* as a source of general information. It weighs 8½ lbs., and can go by express, or be sent by mail for 1 cent per ounce within 3000 miles, or 2 cents per ounce over 3000 miles.

#### Premium H.

40 Subscribers at 80 cents each, (or 21 at \$1 each,) will entitle the person getting up the club to one of the best \$6 Hand Corn Shellers, a convenient, effective, and useful implement.

#### Premium I.

30 Subscribers at 80 cents each, (or 16 at \$1 each,) will entitle the person getting up the club to one extra copy of Vol. XX, and also to the 4 previous unbound Volumes of the *American Agriculturist*, (16, 17, 18, 19) sent post paid.

#### Premium J.

26 Subscribers at 80 cents each, (or 14 at \$1 each,) will entitle the person getting up the club to a \$4 Pocket Microscope, with the celebrated "hour-glass," or Coddington lens, in a solid silver case. Sent post-paid.

#### Premium K.

25 Subscribers at 80 cents each, will entitle the person getting up the club to an extra copy of Vol. XX, and also to any three of the unbound volumes 16, 17, 18, and 19, sent post-paid. 20 Subscribers at 80 cents each, to an extra copy of Vol. XX, and two of those volumes. 15 Subscribers at 80 cents each, to an extra copy of Vol. XX, and one of these volumes.

#### Premium L.

20 Subscribers at 80 cents each, will entitle the person getting up the club to an assortment of *Winsor & Newton's Water Color Paints*—consisting of 12 colors, put up in a neat mahogany case, with brushes, etc. These paints are imported from London, and are by all, con-

sidered the best in the world. They are adapted to the finest work, or they will make a neat and appropriate present to any of our younger readers. They will be sent post-paid anywhere within 3000 miles. (If to go to the British Provinces or the Pacific Coast, the recipient will need to send 84 cents for the extra postage required above the 6 cents per ounce which we pay. This and the next premium, if sent with our box of seeds, going to California in February, can go without the extra expense for postage.)

#### Premium M.

15 Subscribers at 80 cents each, will entitle the person getting up the club to an assortment of *Osborne & Hodgkinson's Water Color Paints*, consisting of 24 colors or shades, put up in a mahogany case with brushes, cups, etc. These are of American manufacture, and though not so fine as the above, they will answer for ordinary practice by children or beginners, and for common sketching. They will also be sent by mail, post-paid. (If to go to the British Provinces, or to the Pacific Coast, \$1.05 will need to be sent by the recipient to pay the extra postage above 6 cents per ounce.)

#### Premium N.

10 Subscribers at 80 cents each, will entitle the person getting up the club to any one of the four previous unbound volumes (16, 17, 18, 19,) sent post-paid.

#### Book Premium.

Valuable Book Premiums.—Instead of the above premiums, any person getting up a club of 20 or more names, may choose Books from *Saxton, Barker & Co's* list (advertised on page 284) to the amount of 12½ cents for each name forwarded at 80 cents, (or 3½ cents for each name sent at \$1.) and the books will be sent post-paid. (If to go over 3000 miles, the recipient will need to send 20 cents for extra postage on each dollar's worth of books. Persons making up a club for any of the above premiums, and getting some names over the required amount, will be entitled to books for the surplus names.

#### Seed Premium.

Premium to Every Subscriber.—A liberal distribution of valuable seeds will be made during next Winter, to all regular subscribers alike, whether single or in clubs, and whether received from agents, or otherwise. (A seed depository will be established in California for the convenience of subscribers on the Pacific Coast.)

## Business Notices.

Sixty-Cents a Line of Space.

### ITALIAN BEES.

Pure Queens of this race are now ready for delivery, impregnated by pure Italian drones of which some twenty thousand are flying about the hives. No common drones are allowed in or near the grounds, and my neighbors have kindly allowed me to remove their common bees to a locality distant two miles from my Italians. For terms and other information apply for Circular to

S. B. PARSONS, Flushing, N. Y.

### GROVER & BAKER'S CELEBRATED NOISELESS FAMILY SEWING MACHINES.

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"The best in use."—*American Agriculturist*, 1860.

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### SANFORD'S HEATERS, Portable or set in Brick,

Are pronounced by the most competent judges to be the best, giving the largest amount of heat, with a small quantity of fuel—owing to their being so constructed as to burn the gases and smoke, and with the largest radiating surface so arranged as to warm the air rapidly to a soft summer heat.

Eight sizes, adapted to warming only one or two rooms, or a whole house, churches, academies, public halls, &c. THEY ALWAYS PLEASE.

THE NEW AIR-TIGHT CHALLENGE RANGE now ready.

Send for testimonials (free) to

SANFORD, TRUSLOW & CO., Manufacturers,  
239 Water-street, New-York.



### To Managers of Agricultural Societies.

It seems hardly necessary to remind the managers of Agricultural and Horticultural Societies, that the best and most economical premiums they can offer, are copies of agricultural periodicals. Money given, is soon spent or forgotten. A good paper, coming free during a year, is operative not only as a stimulus at the outset, but its frequent reception is a constant reminder of the society; and its perusal is likely to keep up an interest in agricultural improvements. We offer this as a general remark, not applicable to our own journal merely. Many thousand copies of the *Agriculturist* are annually given out in this way, however, and we shall be happy to correspond with the Officers of other societies, who may think the matter worthy of their attention.

### Market Review, Weather Notes, etc.

AMERICAN AGRICULTURIST OFFICE,  
New York, Saturday Evening, Aug. 18, 1860.

The receipts of Breadstuffs have been less extensive, except Corn, the arrivals of which have been unusually large. The sales also show a falling off, except corn, in which the transactions have been quite large. Receivers have generally sold quite freely, and prices have been depressed. The demand has been good, especially for Flour and Wheat, which have been in request for export. An unusual scarcity of shipping accommodation, and a further rise of freights to British ports, however, have checked business. The new crop of Wheat is coming in freely. The receipts have been very satisfactory, both in quality and condition. The harvest reports from the West and Northwest are quite encouraging. At the South, crops have suffered great injury from the long drouth, and it is thought that supplies for the people in many parts of the Southern States will have to be procured at the North. The excitement in Tennessee is similar to that which prevailed in the frost districts of Ohio and Pennsylvania in June and July, 1859. The indications are, however, that ample provisions are being made to prevent anything like a famine at the South, and it is hardly probable that famine prices will be permitted to prevail very long, as railroads and steamboats leading in that direction, are crowded to their utmost capacity in carrying food into the suffering districts; while at the same time, the granaries at the great West are in no danger of being exhausted by any demand, either foreign or domestic, that is likely to be made upon them. Yet some operators look to the circumstance of deficient crops in parts of the South, as likely to occasion an additional inquiry, sufficient, at least, to keep up prices, especially in view of the accounts of unfavorable weather, and rather gloomy crop prospects in the British Islands, and in some other portions of Europe. Western millers are complaining of the high prices current, which are considerably above the value of flour, relatively, and they begin to manifest a disposition to withdraw. The advance in prices has been attributed to the shipping demand, but this, according to the export figures, is light as compared with the receipts. Dealers report the amount going into store on commission as trifling. The great bulk of the receipts, therefore, must have been taken by local consumers, or on speculation. Cotton has been rather more sought after at somewhat firmer prices. The transactions in Hay, Hops, and Wool have been moderate. Provisions and other kinds of Produce have been quiet.

#### TRANSACTIONS AT THE N. Y. MARKETS.

RECEIPTS. Flour, Wheat, Corn, Rye, Barley, Oats  
26 bus. ds. last mon. 231,520 1,283,000 1,550,400 12,300 22,465 387,500  
26 bus. ds. last mon. 208,940 1,519,803 1,930,625 30,323 25,632 391,267

SALES. Flour, Wheat, Corn, Rye, Barley  
26 business days this mon. 431,335 1,676,450 1,815,000 22,600  
26 business days last mon. 459,460 2,150,400 1,199,000 39,000 33,000

The receipts at tide-water of Flour, Wheat, Corn, and Barley, for the second week in August, 1860 and 1859, has been as follows:

	Flour, bbls.	Wheat, bush.	Corn, bush.
1860.....	9,800	188,000	559,100
1859.....	5,100	33,800	179,800

Increase, 4,700      164,200      379,300

The aggregate of the receipts of the above articles, so far, for the years 1860 and 1859, have been:

	Flour, bbls.	Wheat, bu.	Corn, bu.	Barley, bu.
1860.....	372,900	4,132,200	7,641,700	78,900
1859.....	197,600	679,600	1,443,000	150,300

Increase, 175,300      3,452,600      6,198,700 Dec. 71,400

Reducing the Wheat to Flour, the excess in the receipts of 1860 is equal to 865,920 bbls of Flour.

The receipts at tide-water of the principal kinds of Breadstuffs, from the opening of the Canals to and including the 14th inst., have been as follows:

	1860.	1859.	1858.
Canal open—	April 28.	April 15.	April 25.
Flour, bbls.....	372,900	197,500	885,000
Wheat, bush.....	4,132,200	679,600	4,926,600
Corn, bush.....	7,641,700	1,443,000	2,553,600
Barley, bush.....	78,900	196,300	383,300
Rye, bush.....	118,900	106,000	214,100
Oats, bush.....	3,544,900	2,201,000	2,375,000

The prospects of the new crop of Barley are beginning to attract the attention of our merchants. The crop of 1860 will undoubtedly exceed that of 1859 in quantity, but the average quality will be inferior to that of the previous year. The crop of Illinois and Wisconsin, and Spring Barley in this State, are much poorer than last year's crop. The crop in the Canadas will be the largest

in quantity and finest in quality ever grown by them. The stock of old malt is much less than last year, and the consumption is much larger. The abundance of the new crop will insure a low range of prices, but choice samples will undoubtedly command a higher price relatively than last year.

#### CURRENT WHOLESALE PRICES.

	July 19.	August 18.
Flour—Superior to Extra State	\$5 20 @ 5 60	\$5 20 @ 5 45
Superior Western.....	5 15 @ 5 25	5 05 @ 5 15
Extra Western.....	5 35 @ 5 50	5 25 @ 5 50
Fancy to Extra Genesee.....	5 60 @ 5 70	5 45 @ 5 70
Super. to Extra Southern.....	5 50 @ 5 50	5 50 @ 5 50
Rye Flour—Fine and Super.	3 45 @ 4 25	3 30 @ 4 10
CORN MEAL.....	3 45 @ 3 75	3 50 @ 3 75
WHEAT—Canada White.....	1 42 @ 1 52	none selling.
Western White.....	1 42 @ 1 56	1 30 @ 1 50
Southern White.....	1 42 1/2 @ 1 55	1 35 @ 1 50
All kinds Red.....	1 25 @ 1 40	1 15 @ 1 31
CORN—Yellow.....	65 @ 68	65 @ 68
White.....	65 @ 75	68 @ 80
Mixed.....	61 @ 62	62 @ 62 1/2
OATS—Western.....	38 @ 40	37 1/2 @ 39 1/2
State.....	40 @ 41	39 @ 40 1/2
Southern.....	36 @ 39	35 @ 38
RYE.....	80 @ 82	77 @ 78
HARLEY.....	60 @ 72	none selling.
White Beans.....	90 @ 95	80 @ 85
Hay, in bales, per 100 lbs.	87 1/2 @ 95	80 @ 85
COTTON—Middlings, per lb.	10 1/2 @ 10 3/4	10 1/2 @ 11
RICE, per 100 lbs.....	4 00 @ 5 00	3 75 @ 4 87
HOPS, crop of 1859 per lb.	6 @ 13	7 @ 14
Pork—New York, per bbl.	12 37 @ 18	19 20 @ 18 50
Prime, new, per bbl.	14 25 @ 14 37	14 @ 14 25
BEEF—Repacked Mess.....	8 50 @ 10 50	8 50 @ 10 50
Country mess.....	4 50 @ 5 75	4 75 @ 6 00
Lard, in bbls, per lb.	13 @ 13 1/2	12 1/2 @ 13 1/2
BUTTER—Western, per lb.	12 @ 14	11 @ 15
State, per lb.	10 @ 18	14 @ 21
CHEESE, per lb.	7 @ 11	7 @ 10 1/2
EGGS—Fresh, per dozen.....	14 @ 15 1/2	12 @ 14 1/2
Western, per doz.....	12 @ 14 1/2	9 @ 12
POULTRY—Fowls, per lb.	12 @ 14 1/2	37 @ 62
Chickens, per pair.....	1 25 @ 1 50	2 00 @ 2 50
Geese, per pair.....	15 @ 17	14 @ 15
Ducks, per lb.....	12 @ 14	14 @ 15
Turkeys, per lb.....	1 25 @ 1 50	1 50 @ 18
Tame Pigeons, per doz.....	44 @ 55	44 @ 51
FEATHERS, Live Geese per lb.	None selling.	8 1/2 @ 9
SEED—Clover, per lb.....	do.	4 00 @ 4 25
Timothy, per bushel.....	6 1/2 @ 6 1/2	6 1/2 @ 6 1/2
SUGAR, Brown, per lb.....	4 1/2 @ 4 1/2	4 1/2 @ 5 1/2
MOLASSES, New Orleans, per lb.	13 1/2 @ 15	14 1/2 @ 15 1/2
COFFEE, Rio, per lb.....	3 @ 12	3 @ 12
TOBACCO—Kentucky, &c. per lb.	4 @ 25	4 @ 25
Seed Leaf, per lb.....	3 @ 25	3 @ 25
Wool—Dorset, fleece, per lb.	38 @ 47	28 @ 48
Domestic, pulled, per lb.	130 @ 150	130 @ 150
HEMP—Undr'd Amer'n pr ton.	100 @ 200	100 @ 200
Dressed American, per ton.....	30 00 @ 36 00	31 00 @ 38 00
TALLOW, per lb.....	2 00 @ 3 75	1 25 @ 2 75
POUL CARB, per 100 lbs.....	3 00 @ 5 00	3 00 @ 5 00
APPLES, per barrel.....	3 50 @ 6 00	3 00 @ 6 00
PEARS, per bbl.....	2 00 @ 3 00	2 00 @ 3 00
PEACHES, South'n, per bush'l.	3 00 @ 4 00	2 50 @ 3 00
Delaware, per basket.....	3 00 @ 4 00	2 50 @ 3 00
PLUMS, per bushel.....	3 00 @ 4 00	2 50 @ 3 00
HUCKLEBERRIES, per bushel.....	3 00 @ 4 00	2 50 @ 3 00
BLACKBERRIES, per bushel.....	3 00 @ 4 00	2 50 @ 3 00
New-Rochelle, per quart.....	12 00 @ 18 00	10 00 @ 18 00
WATERMELONS, per 100 lbs.....	2 00 @ 2 75	2 00 @ 2 75
NUTMEG MELONS, per bbl.....	4 1/2 @ 5 1/2	4 1/2 @ 5 1/2
Dried Apples, per bbl.....	6 @ 14	6 @ 14
Dried Peaches—pr lb. South'n	20 @ 3 00	15 @ 20
Dried Cherries, pitted, per lb.	2 50 @ 3 00	1 50 @ 2 25
POTATOES—Morocco, p. bbl.....	1 75 @ 1 62	1 62 @ 1 75
Janes, per bbl.....	1 87 @ 2 00	1 50 @ 1 75
Dyckman, per bbl.....	2 00 @ 2 50	2 25 @ 2 50
ONIONS, Red, per bbl.....	2 50 @ 3 00	1 35 @ 1 50
TURKISH, per barrel.....	3 00 @ 6 50	3 00 @ 6 00
CUCUMBERS, pr 100.....	2 00 @ 2 50	1 12 @ 1 50
SQUASHES, per bbl.....	75 @ 1 00	50 @ 87
GREEN CORN, per 100.....	2 00 @ 2 00	75 @ 1 00
BEETS, per 100 bunches.....	1 00 @ 2 00	6 00 @ 8 00
TOMATOES, per bushel.....	60 @ 75	62 @ 75
EGG PLANTS, per 100.....		
LIMA BEANS, per bushel.....		

#### N. Y. Live Stock Markets.—THE CATTLE

MARKETS have been abundantly supplied; Receipts for 4 weeks prior to Aug. 14, were 19,452, averaging 4863 per week, or about one-fifth more than for the previous month. Of course prices have declined. At the last weekly market (Aug. 14), 5,195 cattle were offered, and barely sold out at following prices per pound for the estimated dressed weight of the four quarters: Best cattle 9c. @ 9 1/2c. per lb.; Medium, 8c. @ 8 1/2c.; Poor grade, 6c. @ 7 1/2c.; Average price of all sold, 7c.

VEAL CALVES.—Receipts have been light, numbering but 2,998 for four weeks past. Prices have advanced 1c. @ 1c. per lb. live weight. A very few of the best sell at 7c.; good for 6 1/2c.; Poorer grades 5 1/2c. Present demand very good.

SHEEP AND LAMBS are abundant.—Receipts for 4 weeks 55,813, or 13,953 per week. Sales active at a little lower rates. Good Sheep sell for 4 1/2c. per lb. live weight; ordinary sheep at 4c. Lambs are plenty, and sell for 5c. @ 6c. per lb.

HOGS.—Receipts for 4 weeks 17,650, or 4,413 per week. Supply equal to demand. Prices same as last month; corn-fed hogs, 6 1/2c. @ 6 1/2c. per lb., live weight; still fed, 6c. @ 6 1/2c.

The Weather, since our last report, (July 19,) has been quite favorable for farm crops. The drouth that was prevailing when our former number was issued, early gave place to copious rains followed by hot weather which pushed corn and other late crops ahead rapidly. Abundance of rain has fallen during the past four weeks.—Our DAILY NOTES, condensed read thus: July 30, clear and hot, (93°)—21, cloudy with light showers—23, clear and warm, rather dry—23, fine rain A. M., doing much good, but not enough of it—24, 25, clear and hot—26, clear and fine A. M., heavy thunder showers P. M.—27, 28, clear and fine—29, cloudy, rain at night—30, 31, clear and hot.—August, 1, 2, 3, clear and fine—4, showery during day with heavy thunder storm at night—5 to 11, clear hot weather; mercury rose to 95° on the 8th, being the hottest day of the season—12, 13, heavy rain, the best of the season, filling cisterns and thoroughly soaking the ground the first time this summer—14, rain A. M.; clear P. M.—15, 16, 17, 18, clear, cool, everything growing finely.

#### Thermometer at 6 A. M., New-York.

[Observations carefully made upon a standard Thermometer (Fahrenheit.) r indicates rain.]

JULY.									
1.....68r	8.....60	14.....60	20.....74	26.....64r					
2.....64	9.....67r	15.....65	21.....75r	27.....68r					
3.....66	10.....69	16.....70	22.....65	28.....58					
4.....70r	11.....68	17.....67	23.....68r	29.....65r					
5.....66r	12.....60	18.....63r	24.....59	30.....71r					
6.....56	13.....60r	19.....70	25.....64	31.....69					
7.....58									
AUGUST.									
1.....62	4.....68r	7.....69	10.....70	13.....71r					
2.....60	5.....71	8.....73	11.....72	14.....63r					
3.....64r	6.....67	9.....73	12.....65	15.....58					

#### Fair of the American Institute.

This association has decided to hold an Agricultural and Horticultural exhibition at the Palace Garden, on Fourteenth-st., near Sixth Avenue, in this City, to commence Sept. 25th, and continue two weeks.

We annex a few of the regulations somewhat condensed. Competition is open to all, whether members or not.

All articles (except poultry and the second series of cut flowers) to compete for prizes must be presented before 2 P. M. on Monday, Sept. 24th.

The exhibitor's name must not appear on any article until after the decision of the judges.

All articles for competition must be distinctly labeled or numbered.

All fruit, flowers and vegetables must have been grown by the person presenting them, except those used for bouquets, baskets or designs.

Prizes will not be awarded to inferior productions, even if there is no competition.

All articles exhibited will be at the risk of the owners. Exhibitors will receive tickets of admission but the tickets are not transferable.

Those intending to exhibit should give early notice to Thos. McElrath, Cor. Secretary, who will also receive and take charge of packages sent for exhibition.

### Advertisements.

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month. TERMS.—(Invariably cash before insertion):

FOR THE ENGLISH EDITION ONLY.

Thirty-three and one third cents per line of space for each insertion, (three lines for \$1.)

One whole column (145 lines) or more—\$40 per column.

Business Notices Sixty cents per line.

FOR THE GERMAN EDITION ONLY.

Ten cents per line of space for each insertion.

One whole column (130 lines), or more, \$10 per column.

Business Notices twenty cents per line.

FOR BOTH EDITIONS—ENGLISH AND GERMAN.

Forty cents per line; \$45 per column.

Business Notices Sixty-five cents per line.

On Advertisements to stand three months or more, a discount of 5 per cent will be made from the above terms for each three months of the whole term paid for in advance. Thus 5 per cent off for 3 months; 10 per cent off for 6 months; 15 per cent off for 9 months; and 20 per cent off for 12 months.

#### Butter and Cheese Maker Wanted.

Either to take charge of, or have an interest in a dairy of 60 to 100 cows, with ample fixtures and facilities for the manufacture of butter and cheese. Address, with good references, RAND & RICHARDSON, North Fork, Mason Co., Ky.

#### 5,000 AGENTS WANTED.—To sell 4 new inventions

Agents have made over \$25,000 on one, better than all other similar agencies. Send 4 stamps and get 50 names particulars, gratis. To sell Alarm Locks, Stenmets, Book Holders and Belt Hooks. EPHRAIM BROWN, Lowell, Mass.

#### Choice Bulbous Roots.

New descriptive and priced Catalogue of

HYACINTHS, LILiums, TULIPS, &c. &c.

Embracing the largest assortment ever offered.

Catalogues sent FREE. ANDREW BRIDGEMAN,

678 Broadway, New-York.

#### METAL FINGER NAILS FOR HUSKING CORN.

##### Gould's Celebrated Husking Thimbles.

We continue to invite the attention of Farmers and Dealers to this simple and effectual implement for husking corn, and are ready to place into their hands (free of charge) credentials of such a nature, as to defy disabell in its real merits, and augmenting popularity.

Circulars, giving full particulars, sent gratis; six pairs of sample Thimbles (assorted sizes) sent free of postage on receipt of one dollar.

Orders covering five dollars fulfilled at wholesale prices by Express. Address GOULD & CO., Alliance, Ohio.

#### HAY—HAY—HAY.

INGERSOLL'S IMPROVED PORTABLE HAY PRESS, for packing Hay, Cotton, Rags, Hemp, Brown Corn, &c., &c., 700 of these machines having been sold during the last three years, letters from every State in the Union testify to their superiority, convenience and economy.

Price. Hay Press No. 1, \$50; wt. of bale 150 to 200 lbs. No. 2 \$75; wt. of bale 250 to 300 lbs. Cotton Press, \$150. Any size, and for any purpose of packing, made to order and delivered on shipboard in New-York. Address for Circulars or Machines FARMERS MANUFACTURING CO., Greenpoint, Kings Co., N. Y.

## PREMIUMS FOR 1861.

### Vol. XX.

(Subscriptions to the American Agriculturist for 1861 can begin now without extra charge.—See page 288.)

Friends, we desire to run the circulation of our *Twentieth Annual Volume* up to **100,000**. To do this we ask your kind and effective assistance, for which we are willing to divide with you all the income above the bare cost of carrying on the paper and our own living. After close figuring, and liberal terms from manufacturers, we find we can fully keep up the character of our paper, and even improve it, and yet offer you the large premiums named below. These articles are offered as direct pay for time spent in canvassing for names. This year we make no distinction between new and old subscribers, though it is supposed that every canvasser will not only gather up the names of old subscribers, but also secure a large number of new names.

In selecting articles for premiums, we have aimed to get such as are useful, and as have been most frequently called for by our readers. We wish it distinctly understood that these premiums are offered in good faith—no cheap, trashy, imperfect, poorly made, or second hand thing, will be sent out, but each article offered is the best of its kind, and every one will be selected by the publisher from the very best manufactured. They will be the best sold in the market at the prices named.

We offer nothing for competition. Each premium is for a specified number of subscribers, and no one's remuneration will depend upon what other unknown persons are doing. Every one aiming for a premium, knows just what he, or she, is working for; and also that if a higher premium is not secured, a lower one can be taken.

The work of collecting names can begin now with special advantage. See last page (288) for extra inducements to new subscribers.

Any extra specimen copies, or show bills, needed by canvassers, will be freely furnished. We have on hand a good show bill for this year, and shall have a new one out for 1861 before the close of this year.

Of course only one premium can be paid on the same subscriber.

Every person collecting names for premiums, can send the names with the money as fast as obtained, so that the subscribers may begin to receive their papers; but if designed for premiums, two copies of each list of names should be sent, one of them marked at the top, "For premiums," also with the name of the sender. These duplicate lists will be kept on file by themselves, to be referred to in making up the premium when any person has completed sending in names for Volume XX.

The premiums are offered for subscribers for Volume XX (1861), whenever received. Canvassers will have time for completing their lists, but the premium will be paid as soon as any list is made up—if duplicate lists are sent, to refer to at once—without these lists there may be some delay in posting up the books, and collecting together the several names sent by any individual.

No premium is sent till specifically asked for. We have many friends who send in large lists but will take no premium, and we are not certain that premiums are desired unless the fact be mentioned particularly.

It is believed that all can recommend this journal to their friends and neighbors, and urge them to take and read it. It will continue to be independent, outspoken, and reliable, the special friend, advocate, and promoter of the farmer's interest, and will aim to facilitate and lighten the labors of every household. A larger number of instructive as well as pleasing engravings, and a greater amount of really useful information, will be given in the next volume, than in any preceding one. Onward, upward, is our motto.

Premiums A, to J, are offered for subscribers at the lowest club price (80c.), or at the regular price (\$1). Any person who has commenced sending in names at 80c. and finally fails to get the higher number of names, can fall back upon the smaller number, by remitting the 20 cents extra on each of the smaller number of names required.

#### Premium A.

140 Subscribers at 80 cents each, (or 95 at \$1 each,) will entitle the person getting up the club to one of *Wheeler & Wilson's* best \$50 Sewing Machines, new from the factory, and of the very best make. There is no better family machine than this made, as we have proved by nearly three years' use in our own family. We want no better.—The machines will be selected new at the manufactory, be well boxed, and forwarded without expense to the recipient, except for freight charges after leaving the city. Full instructions for setting up and using, go with each machine.

#### Premium B.

130 Subscribers at 80 cents each, (or 90 at \$1 each,) will entitle the person getting up the club to a set of *Appleton's New American Cyclopaedia*, now in course of publication, consisting of fifteen large volumes of 770 pages each. This is a magnificent work, forming a whole library embracing every topic of human knowledge. Ten volumes are now ready, and the remaining five will be furnished as fast as issued. Price, \$45.

#### Premium C.

98 Subscribers at 80 cents each, (or 69 at \$1 each,) will entitle the person getting up the club to one of *Willcox & Gibbs' \$35 Sewing Machines*, including a set of *Hemmers*. This is the best machine of its kind, (sewing with one thread), and has several points superior to other machines. It is neat, well made, simple in its operation; and having tested one for some time past in our own family, we can recommend it to those who can not afford to buy the higher priced double-thread machines. (The regular price of this machine is \$30, but we have included in our offer \$5 extra for the set of *Hemmers*, because those used with this machine are very simple and effective, and should go with every machine sent out.) The machines given as premiums, will be selected new at the factory, be well boxed, and will be forwarded to the recipient free of expense, except for freight after leaving the city. They will go out set up ready for use, with printed directions for operating.

#### Premium D.

65 Subscribers at 80 cents each, (or 32 at \$1 each,) will entitle the person getting up the club to one of the New \$10 Wringing Machines, described on page 247 of the August *Agriculturist*. This is one of the best labor-saving and clothes-saving inventions of the day, and we unhesitatingly say that it will pay to have one to assist in the washing of every family, even if of only moderate size. We would not take \$50 for our machine, if another could not be purchased.

#### Premium E.

60 Subscribers at 80 cents each, (or 30 at \$1 each,) will entitle the person getting up the club to one of *Kendall's Aneroid Barometers*, described on page 232 of the August *Agriculturist*. This is a good portable instrument, and valuable to every person as a weather guide, as well as for scientific purposes. (Price \$10.)

#### Premium F.

50 Subscribers at 80 cents each, (or 26 at \$1 each,) will entitle the person getting up the club to one of the best \$8 Straw and Hay Cutters. (If preferred, the best \$8 Subsoil Plow (two-horse) will be given.)

#### Premium G.

42 Subscribers at 80 cents each, (or 22 at \$1 each,) will entitle the person getting up the club to the new and enlarged \$64 Pictorial Edition of *Webster's Unabridged Dictionary*. This standard work comprises 1748 large 3 column pages. It is not only an ornament to every house, but is of great practical use; and its full definitions place it next to the *Cyclopaedia* as a source of general information. It weighs 8½ lbs., and can go by express, or be sent by mail for 1 cent per ounce within 3000 miles, or 2 cents per ounce over 3000 miles.

#### Premium H.

40 Subscribers at 80 cents each, (or 21 at \$1 each,) will entitle the person getting up the club to one of the best \$61 Hand Corn Shellers, a convenient, effective, and useful implement.

#### Premium I.

30 Subscribers at 80 cents each, (or 16 at \$1 each,) will entitle the person getting up the club to one extra copy of Vol. XX, and also to the 4 previous unbound Volumes of the *American Agriculturist*, (16, 17, 18, 19) sent post paid.

#### Premium J.

26 Subscribers at 80 cents each, (or 14 at \$1 each,) will entitle the person getting up the club to a \$4 Pocket Microscope, with the celebrated "hour-glass," or Coddington lens, in a solid silver case. Sent post-paid.

#### Premium K.

25 Subscribers at 80 cents each, will entitle the person getting up the club to an extra copy of Vol. XX, and also to any three of the unbound volumes 16, 17, 18, and 19, sent post paid. 20 Subscribers at 80 cents each, to an extra copy of Vol. XX, and two of those volumes. 15 Subscribers at 80 cents each, to an extra copy of Vol. XX, and one of these volumes.

#### Premium L.

20 Subscribers at 80 cents each, will entitle the person getting up the club to an assortment of *Winsor & Newton's Water Color Paints*—consisting of 12 colors, put up in a neat mahogany case, with brushes, etc. These paints are imported from London, and are by all, con-

sidered the best in the world. They are adapted to the finest work, or they will make a neat and appropriate present to any of our younger readers. They will be sent post-paid anywhere within 3000 miles. (If to go to the British Provinces or the Pacific Coast, the recipient will need to send 84 cents for the extra postage required above the 6 cents per ounce which we pay. This and the next premium, if sent with our box of seeds, going to California in February, can go without the extra expense for postage.)

#### Premium M.

15 Subscribers at 80 cents each, will entitle the person getting up the club to an assortment of *Osborne & Hodgkinson's Water Color Paints*, consisting of 24 colors or shades, put up in a mahogany case with brushes, cups, etc. These are of American manufacture, and though not so fine as the above, they will answer for ordinary practice by children or beginners, and for common sketching. They will also be sent by mail, post-paid. (If to go to the British Provinces, or to the Pacific Coast, \$1.05 will need to be sent by the recipient to pay the extra postage above 6 cents per ounce.)

#### Premium N.

10 Subscribers at 80 cents each, will entitle the person getting up the club to any one of the four previous unbound volumes (16, 17, 18, 19,) sent post-paid.

#### Book Premium.

Valuable Book Premiums.—Instead of the above premiums, any person getting up a club of 20 or more names, may choose Books from *Saxton, Barker & Co's* list (advertised on page 284) to the amount of 12½ cents for each name forwarded at 80 cents, (or 32 cents for each name sent at \$1.) and the books will be sent post-paid. (If to go over 3000 miles, the recipient will need to send 20 cents for extra postage on each dollar's worth of books. Persons making up a club for any of the above premiums, and getting some names over the required amount, will be entitled to books for the surplus names.

#### Seed Premium.

Premium to Every Subscriber.—A liberal distribution of valuable seeds will be made during next Winter, to all regular subscribers alike, whether single or in clubs, and whether received from agents, or otherwise. (A seed depository will be established in California for the convenience of subscribers on the Pacific Coast.)

## Business Notices.

Sixty-Cents a Line of Space.

### ITALIAN BEES.

Pure Queens of this race are now ready for delivery, impregnated by pure Italian drones of which some twenty thousand are flying about the hives. No common drones are allowed in or near the grounds, and my neighbors have kindly allowed me to remove their common bees to a locality distant two miles from my Italians. For terms and other information apply for Circular to

S. B. PARSONS, Flushing, N. Y.

### GROVER & BAKER'S CELEBRATED NOISELESS FAMILY SEWING MACHINES.

No. 495 Broadway, New-York; No. 18 Sumner st., Boston; No. 730 Chestnut st., Philadelphia; No. 181 Baltimore st., Baltimore; No. 58 West Fourth st., Cincinnati. \* \* For our own family use we became fully satisfied that Grover & Baker's is the best, and we accordingly purchased it.—*American Agriculturist*.

SEND FOR A CIRCULAR.

### WHEELER & WILSON'S SEWING MACHINES.

"The best in use."—*American Agriculturist*, 1860.

Office 505 Broadway, New-York.

SEND FOR A CIRCULAR.

### SANFORD'S HEATERS, Portable or set in Brick,

Are pronounced by the most competent judges to be the best, giving the largest amount of heat, with a small quantity of fuel—owing to their being so constructed as to burn the gases and smoke, and with the largest radiating surface so arranged as to warm the air rapidly to a soft summer heat.

Eight sizes, adapted to warming only one or two rooms, or a whole house, churches, academies, public halls, &c.

THEY ALWAYS PLEASE.

THE NEW AIR-TIGHT CHALLENGE RANGE now ready.

Send for testimonials (free) to

SANFORD, TRUSLOW & CO., Manufacturers,  
239 Water-street, New-York.



### To Managers of Agricultural Societies.

It seems hardly necessary to remind the managers of Agricultural and Horticultural Societies, that the best and most economical premiums they can offer, are copies of agricultural periodicals. Money given, is soon spent or forgotten. A good paper, coming free during a year, is operative not only as a stimulus at the outset, but its frequent reception is a constant reminder of the society; and its perusal is likely to keep up an interest in agricultural improvements. We offer this as a general remark, not applicable to our own journal merely. Many thousand copies of the *Agriculturist* are annually given out in this way, however, and we shall be happy to correspond with the Officers of other societies, who may think the matter worthy of their attention.

### Market Review, Weather Notes, etc.

AMERICAN AGRICULTURIST OFFICE,  
New York, Saturday Evening, Aug. 18, 1860.

The receipts of Breadstuffs have been less extensive, except Corn, the arrivals of which have been unusually large. The sales also show a falling off, except corn, in which the transactions have been quite large. Receivers have generally sold quite freely, and prices have been depressed. The demand has been good, especially for Flour and Wheat, which have been in request for export. An unusual scarcity of shipping accommodation, and a further rise of freights to British ports, however, have checked business. The new crop of Wheat is coming in freely. The receipts have been very satisfactory, both in quality and condition. The harvest reports from the West and Northwest are quite encouraging. At the South, crops have suffered great injury from the long drouth, and it is thought that supplies for the people in many parts of the Southern States will have to be procured at the North. The excitement in Tennessee is similar to that which prevailed in the frost districts of Ohio and Pennsylvania in June and July, 1859. The indications are, however, that ample provisions are being made to prevent anything like a famine at the South, and it is hardly probable that famine prices will be permitted to prevail very long, as railroads and steamboats leading in that direction, are crowded to their utmost capacity in carrying food into the suffering districts; while at the same time, the granaries at the great West are in no danger of being exhausted by any demand, either foreign or domestic, that is likely to be made upon them. Yet some operators look to the circumstance of deficient crops in parts of the South, as likely to occasion an additional inquiry, sufficient, at least, to keep up prices, especially in view of the accounts of unfavorable weather, and rather gloomy crop prospects in the British Islands, and in some other portions of Europe. Western millers are complaining of the high prices current, which are considerably above the value of flour, relatively, and they begin to manifest a disposition to withdraw. The advance in prices has been attributed to the shipping demand, but this, according to the export figures, is light as compared with the receipts. Dealers report the amount going into store on commission as trifling. The great bulk of the receipts, therefore, must have been taken by local consumers, or on speculation. Cotton has been rather more sought after at somewhat firmer prices. The transactions in Hay, Hops, and Wool have been moderate. Provisions and other kinds of Produce have been quiet.

#### TRANSACTIONS AT THE N. Y. MARKETS.

RECEIPTS. Flour, Wheat, Corn, Rye, Barley, Oats  
26 bus. ds. this mon. 231,520 1,285,000 1,856,400 12,300 22,465 387,500  
26 bus. ds. last mon. 268,940 1,519,803 1,699,625 36,523 25,632 391,267

SALES. Flour, Wheat, Corn, Rye, Barley, Oats  
26 business days this mon. 431,335 1,676,450 1,815,000 22,600  
26 business days last mon. 439,460 2,950,400 1,199,000 39,600 35,000

The receipts at tide-water of Flour, Wheat, Corn, and Barley, for the second week in August, 1860 and 1859, has been as follows:

	Flour, bbls.	Wheat, bush.	Corn, bush.
1860.....	9,800	188,000	559,100
1859.....	5,100	23,800	179,800

Increase, 4,700      164,200      379,300

The aggregate of the receipts of the above articles, so far, for the years 1860 and 1859, have been:

	Flour, bbls.	Wheat, bu.	Corn, bu.	Barley, bu.	Oats, bush.
1860.....	372,900	4,132,200	7,641,700	78,900	78,900
1859.....	197,500	679,600	1,443,000	150,300	150,300

Increase, 175,400      3,452,600      6,198,700 Dec. 71,400

Reducing the Wheat to Flour, the excess in the receipts of 1860 is equal to 865,930 bbls of Flour.

The receipts at tide-water of the principal kinds of Breadstuffs, from the opening of the Canals to and including the 14th inst., have been as follows:

	1860.	1859.	1858.
Canal open—	April 28.	April 15.	April 25.
Flour, bbls.....	372,900	197,500	885,000
Wheat, bush.....	4,132,200	679,600	4,926,600
Corn, bush.....	7,641,700	1,443,000	2,553,600
Barley, bush.....	78,900	150,300	383,200
Rye, bush.....	118,900	106,600	214,100
Oats, bush.....	3,544,900	2,201,000	2,375,000

The prospects of the new crop of Barley are beginning to attract the attention of our merchants. The crop of 1860 will undoubtedly exceed that of 1859 in quantity, but the average quality will be inferior to that of the previous year. The crop of Illinois and Wisconsin, and Spring Barley in this State, are much poorer than last year's crop. The crop in the Canadas will be the largest

in quantity and finest in quality ever grown by them. The stock of old malt is much less than last year, and the consumption is much larger. The abundance of the new crop will insure a low range of prices, but choice samples will undoubtedly command a higher price relatively than last year.

#### CURRENT WHOLESALE PRICES.

	July 19.	August 18.
Flour—Superf to Extra State	\$5 20 @ 5 60	\$5 20 @ 5 45
Superfine Western.....	5 15 @ 5 25	5 05 @ 5 15
Extra Western.....	5 35 @ 5 50	5 25 @ 5 30
Fancy to Extra Genesee.....	5 60 @ 5 70	5 45 @ 5 50
Superf to Extra Southern.....	5 50 @ 5 50	5 50 @ 5 50
RYE FLOUR—Fine and Super.	3 45 @ 4 25	3 30 @ 4 10
CORN MEAL.....	3 45 @ 3 75	3 50 @ 3 75
WHEAT—Canada White.....	1 42 @ 1 52	none selling.
Western White.....	1 42 @ 1 56	1 30 @ 1 50
Southern White.....	1 42½ @ 1 55	1 35 @ 1 50
All kinds of Red.....	1 25 @ 1 40	1 15 @ 1 34
CORN—Yellow.....	65 @ 68	66 @ 68
White.....	65 @ 75	68 @ 80
Mixed.....	61 @ 62	62 @ 62½
OATS—Western.....	38 @ 40	37½ @ 39½
State.....	40 @ 41	40 @ 40½
Southern.....	38 @ 39	35 @ 38
RYE.....	80 @ 82	77 @ 78
BARLEY.....	60 @ 72	none selling.
White Beans.....	95 @ 1 05	80 @ 95
HAY, in bulk, per 100 lbs. pral	10½ @ 10½	10½ @ 11
COTTON—Middlings, per lb.	10½ @ 10½	10½ @ 11
RICE, per 100 lbs.....	4 00 @ 5 00	3 75 @ 4 87
HOPS, crop of 1859 per lb.	6 @ 13	7 @ 14
Wool—New Mess, per bbl.	18 25 @ 18 25	18 20 @ 18 25
Prime, new, per bbl.....	14 25 @ 14 37	14 @ 14 25
BEEF—Repacked Mess.....	6 50 @ 10 50	8 50 @ 10 50
Country mess.....	4 50 @ 5 75	4 75 @ 6 00
Lard, in bbls, per lb.....	13 @ 13½	12½ @ 13½
BUTTER—Western, per lb.....	12 @ 14	11 @ 15
State, per lb.....	10 @ 18	14 @ 21
CHEESE, per lb.....	7 @ 11	7 @ 10½
EGGS—Fresh, per dozen.....	14 @ 15½	12 @ 14½
Western, per doz.....	12 @ 14½	9 @ 12
POULTRY—Fowls, per lb.....	12 @ 14½	11 @ 12
Chickens, per pair.....	1 25 @ 1 50	2 00 @ 2 50
Geese, per pair.....	15 @ 17	14 @ 15
Ducks, per lb.....	12 @ 14	14 @ 16
Turkeys, per lb.....	1 25 @ 1 50	1 50 @ 1 75
FATTENERS, Live Geese per lb.	44 @ 53	44 @ 54
SEED—Clover, per lb.....	None selling.	8½ @ 9
Timothy, per bushel.....	4 00 @ 4 25	4 00 @ 4 25
SUGAR, Brown, per lb.....	6½ @ 6½	6½ @ 6½
MOLASSES, New-Orleans, pral	47 @ 40	47 @ 40
COFFEE, Rio, per lb.....	12½ @ 15	14½ @ 15½
TOBACCO—Kentucky, &c. pr lb	3 @ 12	3 @ 12
Seed Leaf, per lb.....	4 @ 25	4 @ 25
Domestic Domestic fleece, per lb.	32 @ 38	34 @ 38
Domestic, colored, per lb.....	28 @ 28	28 @ 28
HEMP—Undr'd Amer'n pr ton	130 @ 150	130 @ 150
Dressed American, per ton.....	160 @ 200	160 @ 200
TALLOW, per lb.....	30 00 @ 36 00	31 00 @ 36 00
OIL CARE, per barrel.....	2 00 @ 3 75	1 25 @ 2 75
APPLES, per barrel.....	3 00 @ 5 00	3 00 @ 5 00
PEARS, per bbl.....	3 00 @ 5 00	3 00 @ 5 00
PEACHES, South'n, per bush'l.	3 50 @ 6 00	3 00 @ 6 00
Delaware, per basket.....	2 00 @ 3 00	2 00 @ 3 00
Blackberries, per bushel.....	3 00 @ 4 00	2 50 @ 2 75
Blackberries, per bushel.....	3 00 @ 4 00	2 50 @ 3 00
New-Rochelle, per quart.....	16 @ 18	16 @ 18
WATERMELONS, per 100.....	12 00 @ 16 00	10 75 @ 20 00
NUTMEG MELONS, per bushel.....	2 00 @ 2 75	2 00 @ 2 75
Dried Apples, per bbl.....	4½ @ 5½	4½ @ 5½
Dried Peaches—pr lb. South'n	6 @ 14	6 @ 14
Dried Cherries, pitted, per lb.	20 @ 30	18 @ 30
POTATOES—Mercers, p.bbl.....	2 50 @ 3 00	1 50 @ 2 25
James, per bbl.....	75 @ 100	1 62 @ 1 75
Dyckman, per bbl.....	1 87 @ 2 00	1 50 @ 1 75
ONIONS, Red, per bbl.....	2 00 @ 2 50	2 25 @ 2 50
TURNIPS, per barrel.....	2 50 @ 3 00	1 25 @ 1 50
CABBAGES, per 100.....	3 00 @ 6 50	3 00 @ 6 00
CUCUMBERS, per 100.....	75 @ 1 00	50 @ 62
SQUASHES, per bbl.....	2 00 @ 2 50	1 12 @ 1 50
GREEN CORN, per 100.....	75 @ 1 00	50 @ 87
BEETS, per 100 bunches.....	2 50 @ 3 00	3 00 @ 3 00
TOMATOES, per bushel.....	1 00 @ 2 00	75 @ 1 00
EGG PLANTS, per bushel.....	6 00 @ 8 00	6 00 @ 8 00
LIMA BEANS, per bushel.....	62 @ 73	62 @ 73

**N. Y. Live Stock Markets.**—THE CATTLE MARKETS have been abundantly supplied; Receipts for 4 weeks prior to Aug. 14, were 19,452, averaging 4863 per week, or about one-fifth more than for the previous month. Of course prices have declined. At the last weekly market (Aug. 14), 5,195 cattle were offered, and barely sold out at following prices per pound for the estimated dressed weight of the four quarters: Best cattle 9c. @ 9½c. per lb.; Medium, 8c. @ 8½c.; Poor grade, 6c. @ 7½c.; Average price of all sold, 7½c.

**VEAL CALVES.**—Receipts have been light, numbering but 2,998 for four weeks past. Prices have advanced 4c. @ 6c. per lb. live weight. A very few of the best sell at 7c.; good for 6½c.; Poorer grades 5½c. Present demand very good.

**SHEEP AND LAMBS** are abundant.—Receipts for 4 weeks 55,813, or 13,953 per week. Sales active at a little lower rates. Good Sheep sell for 4½c. per lb. live weight; ordinary sheep at 4c. Lambs are plenty, and sell for 5c. @ 6c. per lb.

**HOGS.**—Receipts for 4 weeks 17,650, or 4,412 per week. Supply equal to demand. Prices same as last month; corn-fed hogs, 6½c. @ 6½c. per lb., live weight; still fed, 6c. @ 6½c.

**The Weather,** since our last report, (July 19,) has been quite favorable for farm crops. The drouth that was prevailing when our former number was issued, early gave place to copious rains followed by hot weather which pushed corn and other late crops ahead rapidly. Abundance of rain has fallen during the past four weeks.—Our DAILY NOTES condensed read thus: July 20, clear and hot, (93°)—21, cloudy with light showers—22, clear and warm, rather dry—23, fine rain A. M., doing much good, but not enough of it—24, 25, clear and hot—26, clear and fine A. M., heavy thunder showers P. M.—27, 28, clear and fine—29, cloudy, rain at night—30, 31, clear and hot.—August, 1, 2, 3, clear and fine—4, shower during day with heavy thunder storm at night—5 to 11, clear hot weather; mercury rose to 95° on the 8th, being the hottest day of the season—12, 13, heavy rain, the best of the season, filling cisterns and thoroughly soaking the ground the first time this summer—14, rain A. M.; clear P. M.—15, 16, 17, 18, clear, cool, everything growing finely.

### Thermometer at 6 A. M., New-York.

[Observations carefully made upon a standard Thermometer (Fahrenheit.) r indicates rain.]

JULY.				
1.....68r	8.....60	14.....60	20.....74	26.....64r
2.....64	9.....67r	15.....65	21.....75r	27.....68r
3.....66	10.....69	16.....70	22.....65	28.....58
4.....70r	11.....68	17.....67	23.....68r	29.....65r
5.....66r	12.....60	18.....63r	24.....59	30.....71r
6.....56	13.....60r	19.....70	25.....64	31.....69
7.....58				

AUGUST.				
1.....62	4.....68r	7.....69	10.....70	13.....71r
2.....60	5.....71	8.....73	11.....72	14.....63r
3.....64r	6.....67	9.....73	12.....65	15.....58

### Fair of the American Institute.

This association has decided to hold an Agricultural and Horticultural exhibition at the Palace Garden, on Fourteenth-st., near Sixth Avenue, in this City, to commence Sept. 25th, and continue two weeks.

We annex a few of the regulations somewhat condensed. Competition is open to all, whether members or not.

All articles (except poultry and the second series of cut flowers) to compete for prizes must be presented before 2 P. M. on Monday, Sept. 24th.

The exhibitor's name must not appear on any article until after the decision of the judges.

All articles for competition must be distinctly labeled or numbered.

All fruit, flowers and vegetables must have been grown by the person presenting them, except those used for bouquets, baskets or designs.

Prizes will not be awarded to inferior productions, even if there is no competition.

All articles exhibited will be at the risk of the owners. Exhibitors will receive tickets of admission but the tickets are not transferable.

Those intending to exhibit should give early notice to Thos. McElrath, Cor. Secretary, who will also receive and take charge of packages sent for exhibition.

### Advertisements.

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month.

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**The American Corn Husker.**  
(JOHNSTON'S PATENT.)

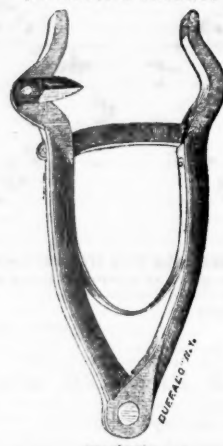


FIGURE 1

THE AMERICAN HAND CORN HUSKER, represented above, is apparently a very simple and useful implement. It promises to supply, at a cheap rate, a long-sought desideratum among farmers—something to facilitate the husking of corn, and save the hands and fingers.

It is nearly human in its operation, and becomes, in its use, almost a part of the hand, and yet will aid and protect it. It has been thoroughly tested and highly commended by more than one thousand practical farmers.

Machines now in use for husking corn, do not operate well, can not facilitate the work, as they require all the corn to be picked and brought to them, and are expensive and complicated, and require skill to use them. The work is performed by them very imperfectly, the corn is wasted, and the husks, silks, and fibers, are only in part removed. But the new American Corn Husker obviates all these objections. Its advantages may be enumerated as follows:

- 1.—In the use of it the corn is only handled ONCE, and less than when husked by hand, as only two motions are necessary, and the husks stripped only on one side.
- 2.—It can be used as well with mittens or gloves, as without.
- 3.—The corn does not have to be picked and brought to it.
- 4.—It is always in your hand, and can be used with the same facility in husking corn standing on the hill, or in the stook, or after it has been picked.
- 5.—It is not any hindrance to the use of the fingers by which it is held—it is so light and compact.
- 6.—By two quick motions the corn is husked, so that one can husk much more with it than he can without it.
- 7.—The corn is perfectly husked, and not a silk, or husk, or fiber is left.
- 8.—The finger part of the Husker operates like the human fingers in opening the husks, stripping them off, & severing the ear.
- 9.—The ear is separated from the husks, most of which are left on the stalk.
- 10.—By means of the diamond-pointed knife, and the leverage obtained between the cross-bar, fingers and knife, the ear is very quickly and easily separated from the stalk.
- 11.—It affords a perfect protection to the hand and fingers.
- 12.—The simplicity and price, only one dollar, will recommend it to every farmer.

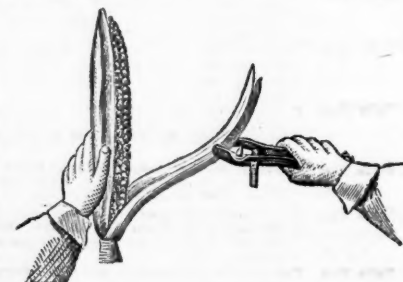


FIGURE 2

**OPERATION.**—Any one will at once be expert in the use of this Husker. The ear should be seized by the left hand, near the middle, and in precisely the same way as if it was to be husked by the hand. The Husker is held in the right hand, with the knife side up, in the same way that Sheep Shears are held. The husks are seized near the top of the ear with the fingers of the Husker, and are stripped off by a quick motion. This is represented in the above illustration, (figure 2.)



FIGURE 3

Now you can see where the ear should be cut off,—and as the diamond-pointed knife enters the stalk, the ear is severed by means thereof, and the leverage obtained between the cross-bar, the knife, and the forward ends of the fingers. Whatever husks were not stripped down by the first motion, now readily separate from the ear. This is represented by the above engraving,—figure 3. This new Husker is manufactured by **R. L. HOWARD**, Buffalo, N. Y.



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STANDARD APPLE TREES, for Orchards, 3 to 4 years from bud and graft.

DWARF APPLE TREES, for Gardens, on Paradise and Doucin Stock, 1, 2, and 3 years from bud.

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PEARS, on Quince stock, 1 to 4 years from bud.

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All the well known Deciduous Trees and Shrubs, as Maples, Oaks, Lindens, &c., and a large number of new and beautiful varieties gathered by their collectors, or imported from Europe. As one of the proprietors has recently visited all the best European establishments, and selected from each all that was worthy of cultivation, they may safely assume that their stock is richer in beautiful novelties, than any one from which they selected, because they appropriated the riches of all.

To enumerate these would require too much space here, and they will be found in the catalogue.

They would call attention to their large variety of rare and beautiful EVERGREENS for a

### WINTER GARDEN.

Where, instead of the leafless desolation which generally reigns seven months in the year, every gentleman may surround himself, even in the depth of Winter, with all the fresh greenness of Spring and Summer.

The RHODODENDRONS are unrivalled for this purpose. They present a mass of rich and glossy foliage for Winter, and for Summer a gorgeous display of flowers. These make the finest undergrowth, while for TREES, there are the robust NORWAY SPRUCE, the graceful HEMLOCK, the feathery HIMALAYAN PINE, the various PICEAS, and the glossy AMERICAN HOLLY. Masses or groups of PODOCARPUS, JUNIPERS, and YEWs, are effective upon the lawn, and single specimens of each evergreen upon the catalogue, will add to the effect.—For our climate and long Winters there is nothing that will compare with a garden of evergreens, unless it is a

### GARDEN OF GLASS.

Where, in apartments of various temperatures, all the fruits and flowers of tropical climates can be grown in profusion.

To those who intend to erect such houses, we shall be happy to show our structures adapted to each class of plants, and to show also the young and thrifty saleable plants of more than a thousand varieties, from the glossy leaf and varied flower of the well known Camellia, to the more rare and curious Orchids, and the novel foliage plants, whose leaves present the delicate or gorgeous coloring of flowers, and are beautiful, not only for a short period of bloom, but throughout the whole year. For blooming under glass, or for BEDDING upon the lawn, a large variety of plants is cultivated in quantity; and for the

### ROSE GARDEN.

Some five hundred of the choicest varieties have been selected, and are cultivated on their own roots, at very low prices. Catalogues will be furnished to all who apply by mail to

PARSONS & CO.,  
Flushing, N. Y.

## TREES! TREES! TREES! For the Autumn of 1860.

The Subscribers, grateful for past favors, and encouraged with a larger and better assortment than ever, ask the attention of Nurserymen, Dealers, and Planters, to their immense stock of well grown trees and plants, comprising

**APPLE TREES**—Standard and dwarf, strong and healthy, with "King of Pumpkins Co." and other good sorts in large supply.  
**PEAR TREES**—Dwarf, a splendid stock, one, two, and three years; fine, strong and healthy trees, of the most approved sorts, on the quince.

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**FOREIGN VARIETIES**

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We have a fine lot of these in extra large pots, for immediate fruiting.

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**STOCKS FOR NURSERYMEN**—Angers Quince, Pear, Plum, Mazzard and Mahaleb Cherry, one year, and Apple Stocks, two years.

Packing will be done in the best manner for all parts of the country.

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ROCHESTER, N. Y.

**FROST & CO.**, Proprietors of the Genesee Valley Nurseries, Rochester, N. Y., offer for sale for the Autumn of 1860, and Spring of 1861, one of the largest stocks of STANDARD AND DWARF FRUIT TREES, SMALL FRUITS, ORNAMENTAL TREES, SHRUBS, ROSES, PLANTS, &c., in the United States. The grounds at the present time contain over

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The stock is so extensive in its different departments, that they are enabled to furnish the entire orders of their correspondents of the different kinds, of the best quality, and at the lowest market prices. Trees and Plants are packed in such a manner, that they will reach the more distant parts of the United States in perfect condition.

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The following Catalogues contain full particulars of the stock in the different departments, and will be furnished gratis to all applicants who enclose a postage stamp for each:

No. 1.—Descriptive Catalogue of Fruits.

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No. 3.—Catalogue of Dahlias, Verbenas, Green-House and Bedding Plants.

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40,000 Apple Trees, suitable for orchard planting, of thrifty growth and popular varieties.

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Concord, Diana, Delaware and Rebecca in limited quantities.

Also the smaller fruits, such as the Strawberry, Raspberry, Blackberry, and Currant, in variety, &c., &c.

A large stock of Evergreen and Deciduous Ornamental Trees.

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Peach Trees, healthy and vigorous, fully equal to any former growth, offered to the trade on the most favorable terms, to clear a piece of ground. No disease known in these nurseries.

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Price per 100 plants.....\$1  
do 1000 do.....8

Liberal discount to the trade.

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Delaware, Diana, Rebecca, Hartford Prolific, Concord, Union Village, Oporto, Anna, Logan, &c.

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Refers to the Editor American Agriculturist.

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We the undersigned having ordered largely of the plants of the Austin Seedling Strawberry, subject to a countermand, if not satisfied when seeing the fruit and plants in bearing, were induced to visit Watervliet, where it originated, and see for ourselves the true condition of this variety. We found it growing in the most common way, in masses, and not in hills, without any particular care, and much injured by the drought, yet the great productiveness, and uniform large size, and fine flavor induces us, to consider the Austin as one of the best varieties in cultivation, and a great acquisition to our small fruits.

We found the Austin averaging considerably larger than the Wilson, and about as productive, and from appearances will continue to fruit into July.

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**THREE HUNDRED BUSHELS TO THE ACRE!**

Price of Plants, \$1 per 1,000, packed and delivered at the Railroad Depot or Express Office in this City. In quantities of 5,000 and upwards a liberal reduction in price will be made. The Money must in all cases accompany the order. Orders for ANY QUANTITY can be filled any time the coming fall or spring.

**HOOKE'S AND PEABODY'S SEEDLING**

At same price. Utica, N. Y., August, 1860. **T. BUCHANAN, JR.**

REFERENCE—EX-GOV. HORATIO SEYMOUR, Utica, N. Y.

## Wilson's Albany Seedling.

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Strong, selected new plants of these desirable varieties, warranted true to name, carefully packed so as to insure safe transportation for any distance at \$7 for 1000; \$4 for 500, or \$1 for 100, for sale by **WM. RICHARDSON**, Riverview, Albany, N. Y.

Raspberry and Blackberry Canes—all the desirable varieties for sale.

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Wilson's Albany and Peabody's at 25 cts. per Doz., or \$2 per Hundred.

Downer's and Chorian's at \$1 per Doz., or \$6 per Hundred.

The Great Austin Seedling at 50 cts. for 1 plant, or \$4 for 1 Doz.

Wilson's Albany and Peabody's, delivered here, at \$4 per Thousand. Address **I. W. BRIGGS**, West Macedon, Wayne Co., N. Y.

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We have an immense stock of SMALL FRUITS for sale during the Autumn of 1860 and Spring of 1861.

In addition to the more common sorts of NATIVE GRAPES we have over 25,000 plants of such desirable sorts as Delaware, Concord, Diana, Rebecca, Hartford Prolific, Early Northern Muscadine, Logan, and 20 other sorts—strong vines for out door culture. Of FOREIGN GRAPES we have 35 sorts, one to two years old, for Hot or Cold Vineries, or for fruiting in pots.

An extensive stock of each of the common sorts of CURRANTS, one or two years old, and fine one year old plants of White Grape, Victoria, Cherry, &c.

Fine and well grown GOOSEBERRY plants, of the American and Houghton Seedling, which never mildew, as well as the best English sorts most suitable for this climate.

A great stock of RASPBERRIES, such as Red Antwerp, (Hudson River,) Yellow Antwerp, Orange, Franconia, Knave's Giant, &c., including several thousand of the Autumn bearing kinds, Belle de Fontenay, Marvel of 4 Seasons, and others.

STRAWBERRIES—The most extensive stock of saleable plants and varieties—comprising over 60 sorts—in the Union.

Fine BLACKBERRIES—New-Rochelle and Dorchester, in large quantities.

Also, FIGS, FILBERTS and MULBERRIES.

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CATALOGUES containing description, with prices at retail, and No. 4 Catalogue, offering plants in large quantities, sent on application containing a postage stamp for each.

**FROST & CO.**, Proprietors of the Genesee Valley Nurseries, Rochester, N. Y.

**SEED WHEAT—SEED WHEAT—SEED WHEAT.**

**RED MEDITERRANEAN.** **BLUE STEM.** **SOULES.**

Choice berry and extra cleaned, all other varieties furnished.

**SEED RYE—SEED RYE—SEED RYE.**

A general assortment of Garden, Field, and Flower Seeds.

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**HORSE POWERS and THRESHERS.**

—Endless Chain and Circular Powers of our own and other patterns, a large variety at manufacturers' prices.

**R. L. ALLEN**, 191 Water-st., New-York.

**Griffing's Improved Potato Digger**

The best Digger ever offered to the farmer. It is easily converted into a double mold-board Plow. Farmers! call and see it at **GRIFFING BROTHER & CO'S**, North River Agricultural Warehouse, 60 Cortlandt-st., New-York.

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I have three entirely different patent Potato Diggers, ranging in price from \$10 to \$30, according to their size and form of construction. Each are admirable implements for throwing out and separating from the earth, Irish and sweet potatoes, and other similar roots. As these crows grow under a great variety of circumstances, in heavy and light, wet and dry soils, some of the above are better adapted to particular fields than others, but either will save the labor of a dozen hands, and perform the work equally well.

**R. L. ALLEN**, 191 Water-st., New-York.





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## 1861.

## TWENTIETH VOLUME.

## A WORD WITH ALL OUR SUBSCRIBERS.

The first volume of the *American Agriculturist* was published in 1842: It will this year go out of its "teens" and enter upon its **Twentieth Year**. When actors upon the stage have served their patrons acceptably during a certain number of nights, we believe it is customary to give them a "benefit." The *Agriculturist* having been upon its stage for nineteen years, will it not be agreeable to give it a Special "Benefit" for its twentieth volume?

Our ambition, for some time past, has been to see this journal a constant visitor to 100,000 Families. We at first intended to aim for this year ago, but on second thought, in consideration of the depressed financial condition of the country, we concluded to defer the effort until better times. Those better times are now at hand; and we want to ask all our present readers to lend us a helping hand in our enterprise, for this once. If each of our present subscribers will barely send us one new name, our longed for object will be at once fully accomplished. We have a confidence that this will be done.

We have no other expectation than to labor as long as we live for the instruction and entertainment of our readers, and we hope fully to repay any effort they may make to extend the circulation of this journal.

## GREAT "BAKER'S DOZEN."

## Fifteen numbers for the Price of Twelve.

Here is a proposition worth looking at.

Every new Subscriber for 1861 (vol. XX), received after Sept. 1st, will be furnished, free of charge, with the remaining numbers of this year, thus:

New subscribers for 1861, received from Sept. 1 to Sept. 30, will be furnished with the Oct., Nov., and Dec., numbers of this year free.

Every new subscriber for 1861, received from Oct. 1st to Oct. 31st, will be supplied with the Nov. and Dec. numbers free.

Every new subscriber for 1861, received from Nov. 1st to Nov. 30th, will receive the Dec. number free. Exception. New names from the Pacific Coast, and other remote points, will receive the extra numbers, though arriving later than the dates named.

N. B. These extra numbers are offered to all new names, whether received at single subscription rates, or as members of clubs, or from voluntary agents or canvassers, or from Agricultural or Horticultural Societies.

N. B. All names furnished by canvassers for premiums will count in their lists, and also be entitled to the extra copies offered above.

N. B. Those preparing to obtain lists for premiums, can begin their work at once, as all names for 1861 will be counted in their lists, whenever received.

N. B. Specimen copies and Show-bills forwarded free to those desiring them.

## Why we do it.

We make the above liberal offer because every new subscriber receiving the remaining numbers of this year will, we trust, like them so well, as to use his influence in getting other new subscribers to the next volume. Again: the extra numbers are a sort of premium or special inducement to those not accustomed to read an agricultural paper. We want to get them to reading and thinking. Those making up clubs, and indeed all our readers, can use the above special offer in soliciting their friends and neighbors to subscribe without further delay. Send on the names at once, and we will have them all properly entered on our books to the close of 1861, and print October numbers enough for all who come.

## How to get Books Free.

By referring to our premium list, on page 282, it will be seen that if you get 20 or more subscribers (new and old) you can have one dollar's worth of books for every eight subscribers, and the books delivered free of expense.

Town and County Agricultural Societies, may unite their efforts and get together quite a library—100 subscribers will secure \$124 worth of books delivered free. (See list of Books, page 284.)

## Members of Clubs

Need not necessarily all be in the same town, or receive all their papers at the same office. We can divide a package into two or more parcels for different offices. The name of every subscriber is in all cases written upon a slip around each person's paper.

## Every one should Look over the Premiums.

On page 282 we have offered a large number of premiums, on a more liberal scale than ever before. See the list and the preliminary remarks. Here is a chance for a multitude of persons to get articles that exactly meet their individual wants, with no outlay of money. During two years past, we have given out over sixteen hundred valuable premiums, and with perhaps an exception or two, arising from a misunderstanding, all these premiums have given the highest satisfaction. One person has secured two \$50 Sewing Machines, and also the Cyclopaedia, without leaving his regular business to canvass. Many others have obtained two premiums.

Take Notice.—To avoid confusion, we this year offer premiums for all large clubs, including old as well as new subscribers.

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The question is very frequently asked: How can we afford such good printing paper, so large an amount of carefully prepared reading matter, so many costly engravings, etc., at so low a price, and yet pay more than any other similar journal for editorial aid and contributions, and give such large premiums, etc. Answer.—We might reply that this is our own business, so long as we continue to contract no debts, to provide for our household, to save a little for a rainy day, and to keep on hand, as business capital, a sufficient amount to meet any contingency or unforeseen emergency—all of which we do. But we will gratify a reasonable curiosity and reply: Our circulation is fully as large as that of at least twenty of the ordinary agricultural journals; consequently we have, for the same number of subscribers, the expense of only one office instead of twenty, only one set of books, only one paper to edit, only one set of engravings, only one type-setting, etc. The editorial and other office routine is no more for 50,000 subscribers than it would be for 1,000. Advertisers can afford to pay us larger prices, also, which increases our facilities. All the receipts from the first 30,000 subscribers are expended upon the paper. On all subscribers above this number we receive a profit to pay back in premiums, in seeds, in improvements upon the paper, etc. We intend to merit and get at least 100,000 subscribers, and then we shall have still more funds for the above purpose. We confess to an ambition, not merely to make money, but to give this journal a high character, a large circulation, and a wide-spread influence for good. So we expect to keep on expending nearly (but not quite) all our annual income, to improve the character and quality of the paper, and to enlarge its circulation.

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